THE General Doctrine OF Equation

Summarily laid down in three CHAPTERS;

CONCERNING THE

Invention
Reduction
Solution
} of an Equation.

By *Mich. Dary.*

LONDON,
Printed for the Author, in the Year 1664.

Courteous Reader,

THe Printer desires thee to dash with thy Pen every / in the heads of the Canons belonging to the six Examples in *pag.* 11, 12, 13. And more, That in the two Tables, *pag.* 15. & 16. x is taken for the sign of Multiplication.

The Doctine of EQUATION, comprized in three Chapters.

CHAP. I.

Of the invention of an Equation: that is, the true stating and purging of a Mathematical question, whereby (if need be) to bring it to one Equation.

1. AN *Equation* is when one Quantity is equal to one Quantity, or when one Quantity is equal to many Quantities, or when many Quantities are equal to many Quantities.

2. Any Mathematical Question may be proposed in an Equation, or in several Equations, coherent in respect of the unknown quantities; those coherent Equations being one to another Heterogeneal.

(3. Any two or more Equations are said to be Heterogeneal, when they may not be reduced one to another: but any two or more Equations are said to be Homogeneal, when they may be reduced one to another.)

4. Therefore when a Question of this nature is proposed, and Solution desired, let there be put (symbolically) for every quantity therein mentioned, some Letter of the Alphabet, (for the known quantities those Letters towards the beginning of the Alphabet; and for the unknown, those Letters towards the later

and of the Alphabet:) then shall you state the whole business of the Question *by Ratiocination thereto requisite*, (for which purpose you ought to be sufficiently furnished with Analytical store) into an Equation, or into several coherent Heterogeneal Equations.

5. If (in a question so stated) the unknown Symbols be more then the Equations, that question is *impertinent*, for it is capable of an infinite nnmber of Answers: But if theunknown Symbols be not more then the Equations, that question is *pertinent*, fot it is not capable of an infinite number of Answers.

6. If the question proposed be *pertinent*, and stated into several Equations, you shall by the first of the 2. Cap. *purge* those Equations of all the unknown Symbols, excepting that which is desired to be known; and so the question will stand in one Equation.

CHAP. II.

Of the Reduction of an Equation: that is, the clearing and trimming an Equation, whereby to know how many, and what kinde of roots it hath.

1. ANy Equation may be *reduced* to a new Homogeneal Equation, if each side be augmented or diminished alike, by Addition, Subduction, Multiplication, Division, Involution, or Evolution.

2. If there be any Fractions in the Equation, let them be cleared of their Nominators by 1. hereof: Also by the same let the Surd Roots be taken away if there be any.

3. If the unknown Symbol be found in all the Terms, you shall clear as many of the Terms of it as may

may be cleared, by 1. hereof : But if all the Terms may be cleared, that Equation is *identical*.

4. If there be any Terms on the right ſide of the Equation, let them be tranſpoſed to the left by 1. hereof.

5. If ſeveral like-Terms be diſtributed, let them be gathered into one Term by the preſcription of their Signes and *Known-factors* : placing the higheſt Poteſtate of the unknown Symbol firſt, (moſt ſiniſterly) and the reſt of the inferiour Poteſtates ſucceeding in their order, the *abſolute* being laſt ; and on the right ſide of the Equation put a Cypher : And note, that when there is a Term having no Signe prefixed, there the Signe + is implied : and where there is no *Known-factor* expreſſed, there a Unite is implied as a *Known-factor*.

6. If there be a *Known-factor* in the firſt Term, let it be cleared away, (if it may be done without Fractionizing any other Term) by 1. hereof.

7. This done, you ſhall take away all the known Symbols, and put their reſpective Numbers in their rooms ; and now you may call it a *trimm'd Equation*.

¶ 8. All trimm'd Equations wherein the Signes are not changed, are always impoſſible.

9. All trimm'd Equations are *conſtituted really or imaginarily* by the fact of ſo many *equated-Binomials* as are intimated by the Index of the unknown Symbol in the firſt Term : that fact being multiplied by the Known-factor in the firſt Term.

(10. In all trim'd Equations the unknown Symbol may be put equal to any one of the Roots as conſtituting the Equation propoſed : If therefore to the unknown Symbol an affirmative Root be connexed with the Signe —, or a negative Root with the Signe +,

Every such Connexion may not unfitly be called an Equated Bimonial.

11. In all trimm'd Equations, an [affirmative / negative] Root is a number or quantity [greater / lesser] then nothing; which wrought according to the Prescription of the unknown Symbol, the result is [alwayes / sometimes] equal to nothing.)

12. Every trimm'd Equation constituted really, hath so many Roots as are intimated by the Index of the unknown Symbol in the first Term: whereof there are so many affirmative Roots, as the Signs (in their order) have Changes, and the rest are negative Roots.

13 In every trimm'd Equation constitued really, having all the Potestates of the unknown Symbol extant, if you change the Signs in even places.

The Known-factor in the second Term is equal to the sum of all the single Roots.

The Known-factor in the third Term is equal to the sum of the Facts of every two Roots.

The Known-factor in the fourth Term is equal to the sum of the Facts of every three Roots, &c.

} Multiplied by the Known-factor in the first term.

14. In every trimm'd Equation constituted really, having all the Potestates of the unknown Symbol extant, if you change the Signs in even places, the affirmative Roots are turned to negative Roots, and the negative Roots to affirmative.

15. Every trimm'd Equation constituted Imaginarily, may be sometimes possible, and sometimes impossible, although the Signs be changed.

CHAP.

CHAP. III.

Of the Solution of an Equation: *that is, the construction and use of the Canon, whereby the possibility or impossibility of* any *trimm'd Equation is discovered; as also one of the affirmative Roots educed in number, and consequently all the rest of the affirmative Roots.*

1. IF the Absolute be affirmed, you shall make it denyed, by changing all the Signs throughout the Equation.

2. Let the Absolute be transposed to the right side of the Eqmation, and then you may may call it the *Resolvend.*

3. Now if you substitute in the room of the unknown Symbol, any Binomial; as (if you please) $l+n$: then are all the Potestates of $l+n$ equal to all the like Potestates of the unknown Symbol; which Potestates of $l+n$ being orderly placed, do make up the *Canon* for the Equation proposed. Which *Canon* may be considered to consist of two parts, the *head* and the *tail*: The head consists of those parcels that have not the secondary Root n in them; and the tail consists of those parcels that have the secondary Root n in them.

4. Let the Resolvend be placed on the right side of the Canon, with the signe of Equation between them, and draw a curved line on the right side of the Resolvend for a Quotient, or Receptacle for the *quæsitous Root.*

5. Beginning at the place of Unites, let the Resol-

be pointed into Periods, as is intimated by the several Poteſtates of the unknown Symbol, *viz.* for a Root every ſingle Figure; for a Square, every ſecond Figure; for a Cube, every third Figure; and ſo on (making the periods over the place of Unites ſomething more ſignal then the reſt) extending toward the left hand for a whole Number, but towards the right hand for a Decimal Fraction; compleating the Reſolvend with Cyphers if need be, for there muſt be as many Periods for one Poteſtate as another, and no more: of which Periods ſo ſeated, one of every ſort of the ſame gradual diſtance from the place of Units, are called *a congruent ſet*.

6. Having thus limited the Reſolvend by Punctation, by ſome tryal you ſhall put for the firſt Figure of the Root, (*viz.* for *l*) the firſt Figure which wrought according to the Preſcription of the head of the Canon, and collected according to the firſt, (if need be, ſecond or third, &c.) congruent ſet of Periods into one reſult, ſhall make a *Subducend*; which being ſubducted from the correſponden part of the Reſolvend limited by Punctation, the ſucceeding Dividend may be affirmative, and leſs then the ſucceeding Diviſor, if you ſhould put $1o \mp n$.

7. But if at any time the ſucceeding Dividend be not leſs then the ſucceeding Diviſor, if you ſhould put $1o \mp n$; it is a certain ſigne that the aſſumed Figure of the Root is too little or too great: if too little, the Diviſor is affirmative; if too great, it is negative. Therefore if ſuch a Subducend cannot be made as is required by the 6 or the 12 hereof, that Equation is *impoſſible*.

8. Subduction being made, let the head of the Canon be cancelled, for it is no more to be uſed.

9. Now and henceforward in the enquiry for every new ſuc-

ſucceeding Figure of the Root, *l* ſhall repreſent (or be equal to) that part of the Root already found, being multiplied by 10, and *n* ſhall repreſent that next ſucceeding Figure of the Root which is enquired for.

10. To the Remainder you ſhall regularly draw down ſo much of the *Reſolvend* as is limited by the laſt Period of the *next* congruent ſet of Periods, makes your Dividend.

11. That there may be ſome light exhibited for the chuſing of the next ſucceeding Figure of the Root, the tail of the Canon (putting $1 = n$) being collected according to the *preſent* Congruent ſet of Periods into one Reſult, makes your Diviſor.

12. By enquiry and ſome tryal you ſhall put for the next ſucceeding Figure of the Root, (*viz.* for *n*) the firſt Figure which wrought according to the preſcription of the tail of the Canon, and collected according to the *preſent* congruent ſet of Periods into one reſult, ſhall make a *Subducend*; which being ſubducted from the foreſaid Dividend, the ſucceeding dividend may be affirmative, and leſs then the ſucceeding Diviſor, if you ſhould put $10 = n$.

13. And ſo you may proceed to finde every Figure of the Root, by repeating the 10, 11, and 12 hereof, having reſpect to the 7 hereof by way of caution: and the Root thus found is the leaſt affirmative Root in the Equation propoſed.

14. Now if it be required to finde another of the unknown affirmative Roots, (if there be any) let the Equation as it ſtood by the 1 hereof before you began to extract this *new known-root* be divided by the equated Binomial, *viz.* the unknown Symbol leſſe the new-known Root: and the Quotient is a trimm'd Equation, (one degree lower then the Dividend) co-

ſtituted (*Chap. 2. Sect. 9.*) by the Fact of all the remaining equated Binomials, multiplied by the Known-factor in the firſt Term. Therefore you may proceed to finde that other affiamative Root required, (and conſequently all the reſt of the affirmative Roots one after another, if need be) by repeating this whole Chapter.

15. For the better expediting the numerous ſolution of an Equation aſcending high in power, and being much adfected, it is requiſite that you have in ſtore a ſufficient Table (ſuch as you may finde in divers Authors) of the powers of numbers: moreover you muſt be familiarly acquainted with a *ſeries* of Poteſtates ariſing from a Binomial. *LAUS DEO.*

Poteſtates ariſing from a Binomial.

$z = l + n$

$zz = ll + 2ln + nn$

$zzz = lll + 3lln + 3lnn + nnn$

$zzzz = llll + 4llln + 6llnn + 4lnnn + nnnn$

&c.

The Facts of the 9 digits into themſelves.

1	2	3	4	5	6	7	8	9
2	4	6	8	10	12	14	16	18
3	6	9	12	15	18	21	24	27
4	8	12	16	20	24	28	32	36
5	10	15	20	25	30	35	40	45
6	12	18	24	30	36	42	48	54
7	14	21	28	35	42	49	56	63
8	16	24	32	40	48	56	64	72
9	18	27	36	45	54	63	72	81

THE

The facts of the 9 Digits into their Squares.

1	4	9	16	25	36	49	64	81
2	8	18	32	50	72	98	128	162
3	12	27	48	75	108	147	192	243
4	16	36	64	100	144	196	256	324
5	20	45	80	125	180	245	320	405
6	24	54	96	150	216	294	384	486
7	28	63	112	175	252	343	448	567
8	32	72	128	200	288	392	512	648
9	36	81	144	225	324	441	576	729

The Facts of the Nine Digits into their Cubes.

1	8	27	64	125	216	343	512	729
2	16	54	128	250	432	686	1024	1458
3	24	81	192	375	648	1029	1536	2187
4	32	108	256	500	864	1372	2048	2916
5	40	135	320	625	1080	1715	2560	3645
6	48	162	384	750	1296	2048	3072	4374
7	56	189	448	875	1512	2391	3584	5103
8	64	216	512	1000	1728	2734	4096	5832
9	72	243	576	1125	1944	3077	4608	6561

Example 1. $537z - 1293815 = 0$

$+\cancel{537}l$ $= 1293815 (2409\frac{182}{537}$

$+537n$

1074

2198

$\cancel{537}$

2148

501

$\cancel{537}$

000

5015
537
4833
182

Example 2. $zz-2439968=0$

$+ll \mid = 2439968 (1562$ &c.
$+2ln \mid 1\cdots\cdots$
$+nn \mid 143$
zx
125
1899
$30x$
1836
6368
$3xzx$
6244
124

Example 3. $-zz+5926z-8771448=0$

$-ll+5926l \mid = 8771448 (2874$
$-2ln+5926n \mid 7852\cdots$
$-nn$
9194
$x826$
9008
1864
$3x6$
1792
728
$x85$
728
000

Exam-

Example 4.

$zzz - 23887872 = 0$

$+lll$	$=23887872$	(288
$+3lln$	$8\cdots\cdots$	
$+3lnn$	15887	
$+nnn$	*x26x*	
	13952	
	1935872	
	2360 4x	
	1935872	
	0000000	

Exam. 5. $-zzz + 177877z - 28875204 = 0$

$-lll + x77877l$	$=28875204$	(243
$-3lln + 177877n$	275754	
$-3lnn$	129980	
$-nnn$	~~5x777~~	$\cdots 30977$
	129108	
	8724	
	4356	
	8724	
	0000	

Example 6. $zzz - 931zz + 284520z - 28425600 = 0$

$+lll - 931ll + 284520l$	$=28425600$	(235
$+3lln - 1862ln + 284520n$	276640	
$+3lnn - 931nn$	76160	
$+nnn$	28920	
	69270	
		6890

68900
x4720
68900
00000

The precepts of this third Chapter as you see hold forth a general method for educing the lesser Root of any Equation: There may be also a general method laid down for educing the greater Root of an Equation but that cannot be done here, because I have confined my self to one sheet. Howbeit having one of the roots, all the rest may be found by the 14 of the third Chap. as before said.

It will not be amiss if we fill up the rest of this sheet with some general Notions of Interest both simple and compound, which you may exercise your self with at your leisure.

The businesse of Simple interest is dispatched by the double rule of Proportion direct thus:

As P = 100 *l.* principal, in T = 1 year, is to G = 6 *l.* gained: so is p = any other principal in t = any other time, to g = any other sum of money gained.

Therefore if any one term of these six be unknown, it is explicated by the other five (like Symbols having the same denomination) as in this Equation,

$$PTg = ptG$$

The business of Compound Interest is performed by a Series of Geometrical proportionals under five Considerations; in which Series if you put a = the first and least term, r = the ratio or common Factor, u = the last and greatest term, t = the number of terms, and s = the sum of all the Terms (as in the Learned Dr. *Wallis* his Works) there will arise these 20 Propositions.

Prop. 1.

	Data:	Que	Equatio.
Prop. 1.	a, r, t	u	$r(t-1) \times a = u$
Prop. 2.	a, r, s	u	$\frac{:r-1: \times s + a}{r} = u$
Prop. 3.	a, t, s	u	$:s-a:(t-1) \times a = :s-u:(t-1) \times u$
Prop. 4.	r, t, s	u	$\frac{s\, r(t-1) \times :r-1:}{r(t)-1} = u$
Prop. 5.	a, r, t	s	$\frac{:r(t)-1: \times a}{r-1} = s$
Prop. 6.	a, r, u	s	$\frac{u-a}{r-1} + u = s$
Prop. 7.	a, t, u	s	$\frac{u-a}{\sqrt{(t-1)\frac{u}{a}} : -1} + u = s$
Prop. 8.	r, t, u	s	$r-1) : ru - \frac{u}{r(t-1)} := s$
Prop. 9.	a, r, u	t	$\frac{u}{a} = \frac{r(t-1)}{r \div\!\!\div} = t-1$
Prop. 10.	a, r, s	t	$\frac{s \times :r-1: + a}{a} = \frac{r(t)}{r \div\!\!\div} = t$

Prop

	Data:	Que	Equatio.
Prop. 11.	a, u, s	t	$\frac{s-a}{s-u}\Big)\frac{::}{::}\frac{u}{a}=t-1$
Prop. 12.	r, u, s	t	$\frac{u}{ur-sx:r-1:}=\frac{r(t-1)}{r\frac{::}{::}}=t-1$
Prop. 13.	a, t, u	r	$\sqrt{(t-1)\frac{u}{a}}:=r$
Prop. 14.	a, t, s	r	$\frac{s}{a}-1=-r(t)+\frac{s}{a}xr$
Prop. 15.	a, u, s	r	$\frac{s-a}{s-u}=r$
Prop. 16.	t, u, s	r	$\frac{u}{s-u}=-r(t)+\frac{s}{s-u}xr(t-1)$
Prop. 17.	r, t, u	a	$\frac{u}{r(t-1)}=a$
Prop. 18.	r, t, s	a	$\frac{sx:r-1:}{r(t)-1}=a$
Prop. 19.	r, u, s	a	$ur-\frac{s}{::}x:r-1:=a$
Prop. 20.	t, u, s	a	$:s-u:(t-1)xu=:s-a:(t-1)xa$

FINIS.

Emendatio

The Diuisors in the 6 Examples are made by putting 1 = n but it would haue bin better if they had bin made by putting 10 = n : and then the 11 sect: Chap: 3: would run thus

That there may be some Light exhibited for ye choosing of the next succeeding figure of the Root, The Rule of ye Canon (putting 10 = n) being collected according to the present sett of Congruent periods into one Result makes your Boundarie, of which Boundary if you reject the Cypher in the last place, the Residue is your Diuisor.

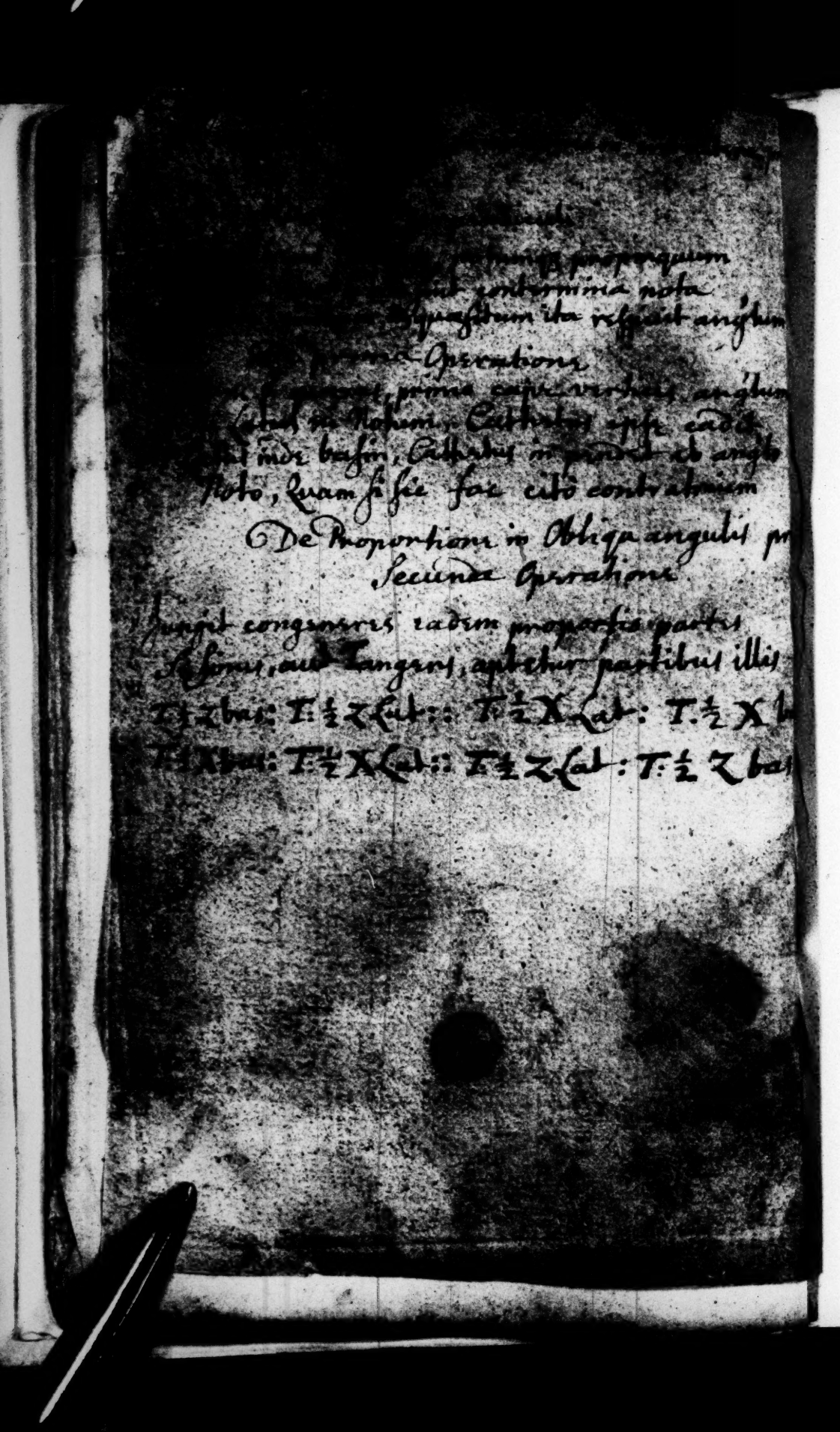
Therefore (Note) in the 3 Chap where you meete with these words succeeding diuisor if you should put 10 = n read succeeding Boundarie.

Example 1: 537z − 1293815 = 0

+537 l } = 1293815 (2409 $\frac{182}{537}$
+537 n }
1074
7198
537
2148
(vide pag: 11) 501
537
000
5015
537
4833
182

Example 4: zzz − 23887872 = 0

+ lll } = 23887872 (288
+3lln }
+3lnn }
+nnn }
8
15887
1900
13952
1935872
243700
1935872
0000000



[illegible]

[illegible] proprinquum
[illegible] contermina nota
[illegible] quaesitum ita respicit angulum

[illegible] Operatione

[illegible] prima cape vertices angulum
[illegible] in Notum, Cathetus ipse cadit
[illegible] inde basin, Cathetus in pendet ab angulo
Noto, Quam si sic fac citò contrarium

De Proportione in Obliqua angulis pr[illegible]
Secunda Operatione

Jungit congeneres eadem proportio partes
Sesinus, aut Tangens, aptetur partibus illis

T. ½ Z bas : T. ½ Z Lat :: T. ½ X Lat : T. ½ X b[illegible]
T. ½ X bas : T. ½ X Lat :: T. ½ Z Lat : T. ½ Z bas

8309 a 19

THE ART OF MEMORY.

BRITISH MUSEUM

THE ART OF MEMORY.

A TREATISE useful for such as are to speak in Publick.

By *Marius D'Assigny*, B. D.

Omnis disciplina Memoria constat, fruſtraque docemur, ſi quicquid audimus præterfluat. Quintil. lib. 11.

Rerum omnium theſaurus Memoria eſt. Cic. 1. de Orat.

Conſtat Memoriam habere quiddam artificii, & non omnem à natura proficiſci. Cic.

London, Printed by *J. D.* for *Andr. Bell* at the Croſs-Keys and Bible in *Cornhil*, near *Stocks-market*, 1697.

BRITISH MUSEUM

To the Young Students of both Universities.

I *Need not tell you, Gentlemen, how useful this Art is and may be to you, whatever Employment you are to undertake in Church or State. As it is the most desirable Faculty for the enriching your Minds with rare Sciences and Knowledges, and the gathering from your Stations those rich Jewels that will cause you one day to appear the greatest Ornaments of your Age and Nation; it is also the most excellent Ability*

for the perfecting of all your Natural Perfections, and procuring to you a real Happineſs in this Life, and an eternal Felicity in the next.

Seeing therefore that ſo many and apparent Advantages depend upon your Memories, and the Improvement of them, pray be not wanting to your ſelves; neglect not this Gift of God, ſuffer it not to be idle and uſeleſs, but employ it for the Purpoſes intended by the Donor's Wiſdom and Bounty.

If you have capacious and officious Memories able to receive, contain and preſerve much, keep them not as empty Bladders, puft up with Wind and Fancy, but fill them while you are at the Fountain with the profitable Knowledg of God and Nature, of

ſound

ſound Learning, and of true Wiſdom, and of thoſe liberal Arts and Sciences by which you deſign to be uſeful, and do good in your Generation.

Let your Elevation be never ſo great, and your Birth never ſo conſiderable, Learning, Knowledg and Wiſdom will add a greater Splendor and Glory to your Nobility, and procure to you a greater Veneration from thoſe who are to be ſubject to your Commands and Dominion. Picus *Father and Son, Earls of* Mirandula, *tho Men of great Eminency in our late days, thought the Exerciſe of their Memories in the ſtudying of all manner of Sciences to be no Diminution to their Nobility, but rather a conſiderable Increaſe to their Native Honour; for one of them*

liſhed at Rome, Theſes de omnibus Scientiis, *with a Promiſe to defray the Charges of thoſe Learned Men, if poor, who would have the Pleaſure to travel to oppoſe and diſpute with him. And if you pleaſe to look into Antiquity, how many Noble and Famous Men, how many Kings and Princes have purchaſed to themſelves everlaſting Renown by the Exerciſe of their Memories, by their Induſtry, Studies and great Learning?* Cato *the Elder, at the Age of* 80 *Years, pleaded his own Cauſe when accuſed by his Adverſaries of a Capital Crime; and it was obſerved, that neither his Memory failed him, nor his Countenance changed.* Themiſtocles *that Noble Athenian, could call all his fellow*

low Citizens by their proper Names; and when he was baniſhed into Perſia, he learnt in a few Months the Perſian Tongue, that he might be able to ſpeak to King Darius without an Interpreter. And in our late Ages King Alfonſus, Averroes, and Avicenna, were noted for their Learning as well as for their Nobility.

Memory is a rich and precious Jewel, if poliſh'd, uſed and improved; but if ſuffered to be idle, it is as a Pearl of great Value in the Hands of a ſlothful or unskilful and ignorant Artiſt.

To this purpoſe Eraſmus ſpeaks very well. Ad nativæ Memoriæ vim natura felicem accedat intelligentia, cura, exercitatio

&

& ordo, ad memoriam confirmandam non nihil opis pollicentur medici: ſed præter ea quæ diximus plurimùm confert perpetua vitæ ſobrietas; nam crapula & ebrietas ut ingenium hebetant, ita memoriam prorſus obruunt. Officit etiam curarum varietas & turba negotiorum, officit & tumultuaria diverſorum voluminum lectio. *And again he ſaith,* Optima memoriæ Ars eſt & penitus intelligere, intellecta in ordinem redigere, poſtremò ſubinde repetere quod meminiſſe velis. *Certainly ſuch have a great advantage who are giſted with a large Memory, but it can yield neither them nor others any Benefit, unleſs they employ this Gift*

Gift for the Purpoſes that their wiſe God hath deſigned in the Donation. And let it be never ſo ſtrong and large by Nature, it may be improved and increaſed by Art and their Induſtry, to the compleating of their Felicity both Temporal and Eternal.

But if Nature ſeems to deny ſome of you this Advantage, and you are not ſo ready and perfect as others in the uſe of this excellent Ability, you are not therefore to ſlight the leaſt Gifts of God in your Creation, but ſtill to endeavour the Improvement and Increaſe of them. Let your Labour and Induſtry ſtrive to ſupply the Deficiencies of Nature, and poliſh this Gift, this precious Jewel by a continual Exerciſe. Demoſthenes, *the Prince of the Greek*

Greek Orators, had such Natural Imperfections, as made him unfit to speak in publick; yet by his resolute and vertuous Endeavours he attained to the highest pitch of Perfection and Glory in Oratory. Art may procure to us divers Excellencies which Nature seems to keep from us; and the Divine Bounty grants many times to our assidual Labours what was refused to our Birth at first. The sparing Hand of Nature in bestowing this Ability should rather provoke our Resolution to get it by other means, than cause us to slacken, or discourage our Endeavours; for according to the old Greek Proverb, δύσκολα τὰ καλὰ, *the greater the Difficulty in the Attempt, the greater will be the Glory and Satisfaction*

faction in overcoming it: for of all the Perfections of the Mind there is none more capable of a greater Improvement than Memory, and none will reward our Labours with more satisfactory Returns than this excellent Ability when we can attain to any Perfection. Pray consider therefore, you who are like to want the use of this rare Faculty in the following course of your Lives, and in the Imployments that you design to engage your selves in, how much it concerns you now to polish and increase your Memories, and exercise them frequently; for, as a Roman *Author observes,* Memoria minuitur nisi exerceas eam. *Tho the Labour may be great at first because of your Natural Imperfections, the Diffi-*

Difficulty is to be overcome by Art; and what is wanting to you in Nature, the other will ſupply in time. Pray weigh and conſider theſe ſeaſonable Verſes applicable to my Purpoſe.

Quiſquis deſidiam, luxumq; ſequetur inertem,
Dum fugit appoſitas incauta mente labores,
Turpis inopſq; ſimul miſerabile tranſiget ævum.

The Advantages that the Exerciſe of Memory will procure to you are innumerable; to you, Gentlemen, chiefly, who deſign to inſtruct the Nation from the Pulpit: for beſides the Honour, Glory, Eſteem and Va-

lue

lue that you will thereby obtain from your Congregations by this way of Delivery, beſides the greater Efficacy and Power that your Words and Preaching will have upon the Minds of your Auditors, beſides the promoting of the Glory of God, and perhaps the perſwading a greater Number thereby out of the broad Road of Eternal Perdition, I muſt needs tell you that you will quickly find an unſpeakable Benefit in a few Years; and your great Pains at firſt in conquering your natural Weakneſſes will be fully recompenſed with a greater Eaſe, Pleaſure and Delight in the publiſhing of your Meditations. You will find that this way of Delivery will ſmooth and poliſh your Conceptions and Fancy.

You

You will find that it will unty your Tongues, and make you more ready to expreſs your ſelves: you will find that your Labours will be the leſs, your Preaching more acceptable, your Improvements greater, your Learning more ſound, and your ſelves able upon a ſudden to anſwer all Gain-ſayers; for by this means the Body of Divinity will become as familiar to you as your Pater Noſter. *Antiſthenes, the* Athenian *Philoſopher, when a Friend complained that he had loſt his Book where he had recorded weighty Matters, told him that he ought not to have truſted things of ſo great Importance to Pen, Ink and Paper, but to his Memory, where he ſhould always have found them ready at hand in time of need.*

There

There is one Advantage more which we ſhall receive by the Exerciſe of our Memories: how conſiderable it may be to us, and what Influence it may have to increaſe and inlarge our Eternal Happineſs, we may at a diſtance gueſs; for thereby the Soul will be inabled to increaſe its Abilities, Faculties and Graces, which have a natural Dependance upon this of Memory, and that alſo will be inabled to retain more; becauſe as there is a ſtrict Union and Communication of all the Perfections between the Soul and Body; ſo that if one receives an Inlargement, it conveys the ſame Benefit to the other, and the other becomes more perfect and accompliſhed in that Ability which its Partner enjoys: The Exerciſe

therefore of Memory will not only inable the Organ now to perform more perfect Acts, and inlarge the Ability while the Soul is in Conjunction with the Body; but at its Separation, and at the great Morn of the Resurrection, this Perfection with all the rest, being as immortal as the Spirit where it is fixt, and to which it is conveyed, by our constant Endeavours and Correspondence with the Body, will then appear more compleat and greater, for the better Reception of future Glory and Bliss, and to our everlasting Comfort and Satisfaction: Therefore as St. Bernard *very well expresseth himself,* Ad æternitatis Gloriam acquirendam nullus labor durus, nullum tempus longum videri debet. *In Doct.*

I would not have those Worthy and Learned Gentlemen of my Function be displeased with this Exhortation and Advice that I address to the Students of our Universities, as if it were designed to undervalue their wise and profitable Meditations pronounced with the Assistance of Book from the Pulpit. Our Nation only is used to this way of Delivery; for we are wont ofttimes, as we ought, to consider and weigh the Things and Expressions more than the manner of the Publication. Neither is it possible for them after a Tract of Time and a long Usage to change their Custom of Preaching. But for the Young Men coming up to supply our vacant Places in Church and State, 'tis now in their

Power to alter this Cuſtom, to exerciſe their Memories, to follow the Practice of the Learned Men of other Nations: 'Tis now in their Power to uſe themſelves to ſuch a Practice as will be advantagious to the Glory of God, the Salvation of Souls, the Credit of our Church, and infinitely beneficial to themſelves.

I recommend therefore this Treatiſe principally to you, Gentlemen; and let nothing hinder you from the Exerciſe of your Memories, and the Practice of the Rules here preſcribed, which I will aſſure you from Experience have proved effectual for the overcoming the Weakneſſes of Nature, and inabling frail Memories to perform the Acts of large and ſtrong. If ſome of them ſeem common, deſpiſe

ſpiſe them not, they will be no leſs uſeful if put in Practice. I have not only conſulted, in the delivery of them, my own Knowledg and Experience, but have alſo ſet down the Advices of ſeveral Learned Men about this Subject, and borrowed from the Skill of the Phyſicians ſeveral approved Experiments for the ſtrengthening and corroborating the Faculty of Memory.

However, I intreat you, Gentlemen, to accept kindly from my Pen this Endeavour for your Benefit and the Publick, and this ſincere Expreſſion of my earneſt Deſire of your Succeſs, Promotions and Advantages, and of the Proſperity of our Church and Nation.

I beseech God of his Infinite Bounty to make you all truly useful in your Generation, to inlarge your Memories, increase your Learning, bless all your Abilities and Graces, and to preserve you all to his Eternal Kingdom. Amen.

ERRATA.

PAge 8. line *penult.* dele *all.* P. 10. l. 27. read ἐνσελέχεια. P. 23. l. 28. r. *suscitat.* P. 43. l. 26. r. *tam.* P. 54. l. 3. r. *capillis.* P. 57. l. 24. r. *linguam.* P. 58. l. 3. r. *dicta.* P. 59. l. 13. r. *albi.* l. 24. put a *colon* after *dictas.* P. 60. l. 26. r. *brilliant.* P. 61. l. 4. r. *Stichados.*

THE

THE CONTENTS.

Chap. 1. *Of the Soul or Spirit of Man,* page 1
Chap. 2. *Of Memory, its Seat, and Excellency,* p. 18
Chap. 3. *The Temper or Diſpoſition of the Body beſt and worſt for Memory, with the Natural Cauſes and Reaſons of both,* p. 30
Chap. 4. *Some General and Phyſical Obſervations and Preſcriptions for the remedying, ſtrengthning, and reſtoring a Memory injured by the ill Temper of the Body, or the Predominancy of one of the four Qualities in the Brain,* p. 38

Chap.

Chap. 5. *What is very much prejudicial to the Faculty, Habit, and Practice of Memory,* p. 42

Chap. 6. *Of such Natural Things as may be assisting to, and may comfort Memory, from the Procurement of Nature, and the Contrivance of Art,* p. 49

Chap. 7. *Rules to be observed for the Acts or Practice of Memory,* p. 62

Chap. 8. *Rules to be observed to help our Remembrance of things that we desire to preserve in Mind,* p. 77

Chap. 9. *Of Artificial or Fantastical Memory or Remembrance,* p. 82

The

The Art of Memory, &c.

CHAP. I.

Of the Soul or Spirit of Man.

THE Excellent and Wonderful Frame of the Human Body, wherein the Wiſdom of the Creator ſhines ſo beautifully and apparently before our Eyes, being but the Cabinet of the Soul, or the outward Shell, made on purpoſe to receive and entertain this Immortal Creature, gives good reaſon to imagine that this Jewel is far more excellent and of a greater Worth. Certainly our Wiſe Maker had no mean Eſteem of this Maſter-piece of the Creation, ſeeing he hath cauſed all Viſible Beings to be deſigned for the Good, Aſſiſtance, Pleaſure, Recreation, Happineſs, and Glory of Man.

Therefore at the firſt forming of *Adam*, the Sacred Trinity proceed with Deliberation, and act together with an extraordinary Care and Conſultation; *Let us make Man after our own Image.* Man bears both in Body and Soul a lively Reſemblance of the Unity and Trinity, and the Relation that our Almighty God has to this great World. For as this univerſal Spirit gives Life and Motion to every Member and Part, and ſupports the whole Fabrick by an over-ruling Providence, and a comprehenſive Spirit; thus the Soul is the firſt and only Principle that actuates, governs, and moves the Microcoſm, the Body, and every Senſe and Member, being in the whole, and entire in every Part. In the Godhead there is a Unity that admits of no Diviſion, an Omnipotent Spirit, not ſubject to the Infirmities of Separation or Partition. And is not the Soul or Spirit of Man in this Excellency, the Repreſentation of his Heavenly Maker? It is a Unity not to be divided nor cut in parts; it diſcovers it ſelf in the whole Body, and by its Operations in every Member produceth differing Acts according to the Diverſity of the Organs. In the Godhead we are infor-

informed by the Sacred Pen-men, that there is a Trinity of Perſons, the Father, the Son, and the Holy Ghoſt: Likewiſe in the Soul of Man we find three remarkable and diſtinct Faculties, the Underſtanding, the Will, and the Memory; which tho they be three Abilities or Powers, are but one Soul or Spirit. Of this Reſemblance between God and the Soul, *Seneca* ſeems to be ſenſible, when he inquires, Epiſt. 32. *Quid aliud voces Animum, niſi Deum in humano corpore hoſpitem?* And St. *Auſtin*, in his Treatiſe of the Trinity, expreſly confirms the Truth of this great Myſtery, by this Parallel with the Soul of Man. Man therefore being the living Image of his Creator, participates in ſome meaſure of the Excellency of that Eternal Being: Who in all his Proceedings in relation to this Creature, expreſſeth a high Eſteem of him, and of his Immortal Spirit. For him he ſeems to have raiſed, beautified and adorned this great Fabrick of the World, putting all things in Subjection under his Feet, and made him as it were a viſible God, to govern, diſpoſe of, and command all the Creatures that inhabit the four Elements. For him he hath

kindled ſo many Glorious Lights in the Firmament above, ſending down from thence the continual Expreſſions of his Kindneſs and Goodneſs to Man. For him the World is maintain'd, and the Omnipotent Hand of Divine Providence ſupports and continues all things entire, for the Completion of that appointed Number of Mankind deſign'd for Happineſs, from the Beginning, by the Divine Wiſdom.

And ſince Man hath wilfully forſaken his Maker, and join'd himſelf in Rebellion with the Apoſtate Spirits, God's Mercy hath not totally rejected him, nor debarred him from a Return; but on the contrary he invites him back to himſelf, with the greateſt and moſt endearing Expreſſions of Love, Kindneſs and Eſteem. The Divine Mercy values the Souls of Men at ſo high a rate, that it hath given an infinite Price to redeem them; and employs the Agency of an Omnipotent Spirit to ſanctify and prepare them for the noble Purpoſes for which they are deſign'd. If the Souls of Men had not been full of Excellency, and of a great Value, would the Eternal Wiſdom ſuffer the Son of God to forſake his Glory, and

ſtoop

ſtoop ſo low to fetch them out of the Depths of Everlaſting Miſery? Would he have joined himſelf to this Being, and took upon him our Human Nature? Would he have thought no Pains nor Suffering too great to purchaſe them to himſelf? Would he have opened for them the Treaſuries of Immortality to enrich them, and commiſſion'd his Holy Spirit to poliſh and purify them from the Remains of Corruption? Would the Glories of the Heavenly Manſions be preparing to receive theſe Souls, and the Bleſſed Spirits Above attend to conduct us in our Paſſage thither, were there nothing in us worthy of ſo great Love, Care, Expence and Labour? It plainly appears therefore, by the actings of Divine Wiſdom, and the proceedings of the Spiritual Beings, who in reaſon ought to be well acquainted with the real value of the Spirit of Man, that it is of a Divine Excellency, and far more worth than the whole World; ſeeing they have no ſuch regard for any created Being beſides, as for this viſible Governour of the Univerſe.

If therefore Man's Soul is a Jewel of ſuch extraordinary Worth, if God and

the Superiour Beings have for it ſo great an Eſteem; certainly Man ſhould have no leſs for this better part of himſelf. However, it is a Madneſs to proſtitute the Intereſt of the nobleſt Part to the Luſts, Follies, and Corruption of the vileſt, and prefer the deceitful momentary and counterfeit Satisfactions of the Body to the real and everlaſting Advantages of the Soul: A Weakneſs not excuſable in a Rational Being.

And if the Abuſe of ſo Divine a Part of our ſelves be Criminal, the Neglect is Hainous. Remember, O Man, that this Rich and Spiritual Jewel is by the Divine Wiſdom committed to thy Care, and recommended to thy Endeavours to be poliſhed and fitted for the adorning the Heavenly Sanctuary above. As there are divers Imperfections that belong to it in the preſent State, which render it incapable of ſo high an Advancement, and which muſt of neceſſity be firſt removed by our Religious Practices; ſo there are ſeveral Ornaments, Excellencies, and Improvements requiſite before it can expect ſo great an Honour. It is not poſſible to leap from our vile and mean Condition of Sin and Corruption, to the Enjoyment

joyment of the Preſence of a Holy God, without a due Preparation, or in a moment of Time. We are to draw near by degrees, and labour to attain to thoſe Endowments of the Mind that may prediſpoſe and recommend our Souls for the Heavenly State.

There is nothing created in a condition of an abſolute Perfection, but in a poſſibility to be advanced higher, to be encreaſed, enlarged, and enriched with greater Perfections. Chiefly the Intelligent Beings, who have Abilities and Faculties granted to them for that very purpoſe by our wiſe Creator, it is certainly their duty to anſwer this end of their Creation, to ſtudy the Improvement of their Natures, and labour in this Life to draw nearer to Perfection; which tho it be not attainable till we be admitted to the Viſion of our God, nevertheleſs it is both our Duty and Intereſt to approach as near as we can to that Bleſſed State, and prepare the Abilities of our Souls for that Glorious End.

And tho all Gifts, Graces and Improvements of our Nature proceed from God, as the Apoſtle affirms, that is, from the Aſſiſtance of his Holy Spirit and Di-

vine Bounty, from the Concurrence of his over-ruling Providence and apparent Benediction, from the ſecret Actings of his Grace and Wiſdom, that influences our Wills and Endeavours; yet we are not to be ſluggiſh and idle. But as we come into the World with active Abilities, we are in all reaſon obliged to employ them, and make them inſtrumental in procuring our own Good. Nay, we are to ſeek and endeavour this Improvement, and not wholly to depend on the favourable Will and Bleſſings of our Maker.

But of all Improvements thoſe of the Spiritual part of Man are chiefly to be minded, becauſe our preſent and future Happineſs will thereupon depend, becauſe ſuch Improvements are not ſubject to the Caſualties of the Body, nor cannot eaſily be taken from us by Violence or Death; but as this excellent Being is Immortal, all the Ornaments and Perfections acquired to it do accompany it into another State, and are not changeable without our Wills and contrary Endeavours. How ſoon are the Excellencies of the Body deſtroyed, and the Gifts of God and Nature humbled in the Duſt,

Duſt, together with all our Labours to imbelliſh and adorn this outward part of our Selves, made the Sport and Food of the vileſt Worms? But the precious Souls of Men, with the Graces and Vertues that enrich them, are not ſo quickly ſpoiled; they are to continue with that Heavenly Subſtance, and to abide with it for ever. Death, the great Deſtroyer of God's Works, can't ſeparate thoſe Perfections from the Souls, with which God's Bleſſings and our Endeavours have enrich'd them.

For this Noble Part as well as the Body is capable of great Improvement. The latter grows and encreaſes by degrees, in the uſe of the ordinary Methods appointed by God in Nature. Thus the Soul with every Faculty is to be enlarged, increaſed, and advanced to Perfection, by the means preſcribed to us by the Divine Wiſdom. The Underſtanding is to be enriched with an increaſe of Prudence, Wiſdom and Knowledg; the Will of Man with the Habits of Moral and Chriſtian Vertues. Thus ought the other Faculty of the Soul, called the Memory, to be enlarged, increaſed and imbelliſhed. To this purpoſe St. *Bernard* hath an excellent

cellent Saying, *Dilatari oportet animam, ut fiat habitatio Dei.* Sup. Cant. Serm. 28. For that intent our wiſe Creator hath appointed in his Church the uſe of his Word and Ordinances, hath ordered his inſpired Prophets and Apoſtles to deliver to us the Sacred Myſteries of our Religion, and the moſt Heavenly Directions, that *we may grow in Grace, and in the knowledg of our Lord and Saviour Jeſus Chriſt*, 2 Pet. 3. 18. And for the ſame purpoſe our good God hath opened to us the Books of Nature and Providence, that we might continually read, ſtudy and underſtand the Secrets of his Divine Wiſdom, and draw nearer to the Perfections of the Mind; unto which we ſhall never attain till we are admitted to the Viſion of God.

Now this precious Jewel is by the Philoſophers defined, *Forma ſubſtantialis corporis viventis, per quam vivimus, ſentimus, nutrimur, intelligimus, & loco movemur*; The ſubſtantial Form of our living Body, by which we live, are ſenſible, nouriſhed, underſtand, and move from place to place. *Ariſtotle* tells us, it is ἐντελέχεια of the living organized Body. 'Tis altogether Spiritual, and proceeds from the

the immediate Agency of our wiſe God, Creator and Preſerver of all things, who at the time of Conception and Formation of the Body, when the Parts and Organs are duly prepared, and fitted to receive this Heavenly Gueſt, creates it without any Concurrence or Aſſiſtance of the Parents. Witneſs the Words of the *Eccleſiaſtes, chap.* 12. *verſ.* 7. That at the Diſſolution, *the Spirit ſhall return unto God who gave it.*

And it is obſervable in this Excellent and Spiritual Being here are divers Faculties, which are either natural, vital or animal, by which the Soul in conjunction with the Body produces divers Functions and Actions of Life. The Natural Faculty is that Power of the Soul by which the Body, aſſiſted by the natural Heat and Food, is nouriſhed, grows, and produces acts of Generation. The Vital Faculty is that by which the Vital Spirits are engendered in the Heart, and Life is preſerved in the whole Body. The Animal Faculty is likewiſe that Power of the Soul by which a Man is ſenſible, moves, and performs the principal Functions, which are Imagination, Reaſon and Memory; which indeed are the chief Functions of the reaſonable Soul. We

We muſt here take notice of a conſiderable difference between ψυχὴ *anima*, and πνεῦμα *ſpiritus*. Indeed the Divine Oracles make uſe of both Words to expreſs the ſame Spiritual Being; as in *Matth.* 10. 28. μὴ φοβηθῆτε ἀπὸ τῶν ἀποκτεινόντων τὸ σῶμα, τὴν δὲ ψυχὴν μὴ δυναμένων ἀποκτεῖναι. φοβηθῆτε δὲ μᾶλλον τὸν δυναμένον καὶ ψυχὴν καὶ σῶμα ἀπολέσαι ἐν γεέννῃ. *Fear not them which kill the Body, but are not able to kill the Soul: but rather fear him which is able to deſtroy both Soul and Body in Hell.* This ſame Soul is named the Spirit, in the laſt Prayer of the Proto-Martyr, *Acts* 7.59. Κύριε Ἰησοῦ, δέξαι τὸ πνεῦμα μου. *Lord Jeſus, receive my Spirit.* Therefore the Soul and the Spirit in the Scripture-Language, ſignifies that ſame Spiritual Being that enlivens, moves, and governs this dull Maſs of the Body, which cannot be deſtroyed by the Malice of Men, and which at the Separation is received into an Eſtate of Bliſs, by our great Saviour, and the Holy Angels his miniſtring Spirits. Yet if we examine ſome other Paſſages of Holy Writ, we ſhall meet with a Diſtinction not Eſſential but Accidental. In

1 *Theſſ.*

1 *Theſſ.* 5. 23. St. *Paul* deſires *that their whole Spirit, and Soul, and Body be preſerved blameleſs unto the Appearance of our Lord Jeſus Chriſt.* And the Author to the *Hebrews*, Chap. 4. *v.* 12. declares, *That the Word of God is ſharper than any two-edged Sword, piercing even to the dividing aſunder of Soul and Spirit.*

Interpreters differ ſomething in the Expoſition of theſe two Paſſages. Mr. *Calvin* underſtands by the Soul the Will and its Affections, and by the Spirit the Underſtanding and all its Gifts: which Interpretation ſeems to be weak, and not anſwering the Scope of the Words. Others, and amongſt the Antient Fathers not a few, tell us, by the Soul is meant the Senſual and Animal Part of Man, and by the Spirit the more refined and more ſublime Part, the Intellect and its Perfections. This Interpretation, in my Judgment, draws neareſt to the meaning of the Apoſtle: but we muſt take heed of a groſs Error, contrary to all Reaſon and Philoſophy, of ſome of them, who make Man to be compoſed of three Parts, Body, Soul and Spirit, and multiply Beings without Neceſſity. The Spirit given by God to enliven, move, and govern this Body,

Body, is but one, and hath all the Abilities granted to it which they aſcribe to two diſtinct Subſtances; it hath the Power to govern the Senſes as it is united to the Body; and as it withdraws it ſelf from the Senſes, it performs all Spiritual Operations: Therefore this Gloſs which is deſigned by them to ſolve the difficult Queſtion about the Deſcent of Chriſt into Hell, in my Opinion is not Orthodox, nor agreeing with the Principles of Reaſon and Nature.

So that in theſe two Paſſages τὸ πνεῦμα and ἡ ψυχὴ differ in ſome reſpect, but it is only in the Original Signification of the Words, and in the Relation that the Spirit of Man hath to the Body, and the Animal Faculties and Operations. As it is a Spiritual Being ſeparate from the Body, and enjoys a Subſiſtence independent from this outward Tabernacle, it is named τὸ πνεῦμα, the Spirit of Man, created by the immediate Hand of God at that moment that it is put to inform and enliven the Organized Body, which takes its immediate Beginning from other Principles. This Spirit at the Diſſolution of the Body is immortal, and returns to God that made it, and cannot be deſtroyed

ſtroyed by Death. It enters into another State, and hath the freedom of its Faculties and Operations, as the Holy Angels above. It is deliver'd from the Pains and Slavery of the Body, and from its Concernment with this vile Part of Man. It enters into a new Acquaintance, and into a Converſation with Beings anſwerable to it ſelf. In this bleſſed State, ſtiled in Holy Writ, *The Joy of our Lord*, *The Paradiſe of God*, *Fulneſs of Joy*, *God's Preſence*, &c. the Soul or Spirit retains all its Perfections, Graces and Abilities; and being delivered or let looſe from the Body that clogs it, from the Members and Organs decay'd by Sickneſs or old Age, it thereby arrives to a more excellent Activity than it was formerly capable of, when confined to the Limits and Bondage of the Senſes. It is not ſo much ſtraitned in its Operations as when it was One in Society with the weak and infirm Body; but every Faculty hath the greater liberty to manifeſt that Improvement that hath been made in them by our former Diligence, Induſtry and Labours.

But while this Spirit continues in Conjunction with the Body, and operates by the

the Senſes and Organs, it is properly named ψυχὴ, *Anima*, or the Soul, and in the Hebrew Tongue נֶפֶשׁ a word derived from the Verb נָפַשׁ he breathed, becauſe its preſent Being and Subſiſtence relates to the Animal Functions maintained and continued by our conſtant breathing. But tho moſt part of the Actions of this Spiritual Being are produced in and by the Organs of the Body, there are at preſent many Operations of the Soul that have no relation to the Senſes, eſpecially in ſuch as are ſanctified by the Spirit of God, and are deſigned for a better and higher State: Therefore in the former Paſſage to the *Theſſalonians*, St. *Paul* prays that God would ſanctify their Spirits from the Corruption convey'd to them by the vicious Inclinations of the Body, and that this immortal Part might be preſerved pure and undefiled from all Sin and Infection: That the Soul likewiſe, that is, the ſame Spirit as it works and acts by the Animal Senſes of the Body, and in conjunction with this outward Part, might be alſo free from Sin and Pollution: And that the Body alſo with all its Members might be ſanctified, and preſerved blameleſs unto

to the Appearance of Chriſt. Likewiſe the Author to the *Hebrews* tells us, that the Word of God is ſo ſharp as to divide between the Spirit and the Soul; that is, that it is ſo exact in its Commands and Injunctions in relation to Piety and Holineſs, as to lay an Obligation to be circumſpect upon the Spiritual Being of Man in the Actions that are produced in conjunction with the Body, and in the Operations that are ſeparate from the Senſes, and that it cenſures both the Spiritual and the Senſitive Part of Man.

But by this near Conjunction of the Soul and Body, it happens that the Habits of the former are more or leſs perfect, and the Actions more or leſs excellent according to the good or vicious Diſpoſition of the latter. So that an Impediment or a Weakneſs in the Organ may hinder the Soul from acting. But ſuch Impediments, if they proceed not from a natural Deficiency in the principal Part, may in ſome caſes be removed by an aſſidual Labour, a reſolute Induſtry, a long Uſage, and the Bleſſing of the God of Nature. As in the Example of a famous Orator, who wore away the ſtammering of his Tongue with Peble

Stones, and attained to a Facility of Speech and Memory by ſpeaking often to the roaring Waves of the Sea.

Indeed we are the more indebted to our wiſe Maker, when he gives an excellent Soul in a well-diſpoſed and well-organized Body, and that the Temper of the one aſſiſts the Operations of the other.

CHAP. II.

Of Memory, its Seat, and Excellency.

ST. *Auſtin* names Memory the Soul's Belly or Store-houſe, or the Receptacle of the Mind, becauſe it is appointed to receive and lay up as in a Treaſury thoſe things that may be for our Benefit and Advantage. Divers Names and Deſcriptions are given to it, but all may be reduced to this one Definition, That it is that Faculty of the Soul appointed by our wiſe Creator to receive, retain and preſerve the ſeveral Ideas convey'd into it

it by the Inlets of the Underſtanding, whether intellectual or ſenſitive.

Two Vertues belong to it, readily to receive, and long to retain whatſoever is committed to its Cuſtody by the Underſtanding: For Perfection of Memory conſiſts in theſe two Qualities, quickly to receive the Impreſſions or Images of things, and to keep them long from Oblivion, that the Intellect might there find them to employ them for ſuch Uſes as Reaſon may require. There are likewiſe three differing Acts of this Faculty, tho ſome reckon but two; 1*ſt*, That which we properly call Memory, which is a Retention of the Ideas of things admitted into the Soul. 2*dly*, *Recordatio*, Remembrance, or a calling to Mind, or a refreſhing thoſe Ideas that are there cloſeted up. 3*dly*, *Reminiſcentia*, which is a Recovery of the ſame Ideas which were formerly loſt, or a renewing of thoſe Impreſſions in the Memory that were blotted out, or defaced by Forgetfulneſs. The firſt may be found in ſome meaſure in the Brutes, and other Animals, who have a kind of local Retention of the Objects that are either grateful or hurtful to their Natures; ſo that the preſence

of thoſe things cauſe them either to fly from, or to run to them, having had a former Senſe of their good or evil Qualities. This Animal Memory differs in this from that of Man, in that it requires the preſence of the Objects to mind the dumb Creatures of their paſt Experience; but the Soul of Man having more perfect and excellent Aſſiſtances, needs not the Repreſentation of Things to remember the former Paſſages; neither is his Memory ſo narrow, ſo weak and infirm, as that of the Brutes. But the two latter Acts of Memory are not to be found in them, becauſe they depend on the reaſoning of the Underſtanding, and cannot be produced without that Ability, which we cannot admit in other Animals.

And tho theſe two Acts, which ſome reckon to be but one, be produced by the ſame Faculty as the Acts of Memory, yet they differ in this, that the Memory may be without the uſe of reaſoning, but the others require the Aſſiſtance of the Rational Faculty to recover the loſt Ideas, by the help of certain Circumſtances that remain yet in our Mind. Beſides, it's very common, that ſome who are excellent for Memory, may be the more apt to be guilty

guilty of Forgetfulneſs, and to let ſlip out of their Thoughts many weighty Matters. Again, Memory precedes Remembrance in relation to Time, for we can't call to mind Things that we never had in our Memory before. And I judg there is this difference between *Recordatio* and *Reminiſcentia*, that the firſt is a plain Remembrance of Things remaining yet in the Memory, but not thought upon before, by reaſon of the multiplicity and crowd of other Ideas; whereas *Reminiſcentia* is a recovery of the loſt Ideas which were blotted out of the Memory, and again refreſhed and renewed by the aſſiſtance of ſome known Circumſtances and Paſſages, that lead us to the minding again of thoſe Things that we had forgotten: however we muſt acknowledg between them the difference of *magis & minus*. Now there are four natural Motions obſervable in Memory; Firſt, the Motion of the Spirits, which convey the Species or Ideas from the thinking Faculty to that of Memory. Secondly, the Formation or Reception of thoſe Ideas, and the fixing or imprinting them into the Fancy. Thirdly, a returning back of thoſe Spirits from the me-

morative Faculty to the rational. Fourthly, that Action by which the thinking Faculty reviews what is treaſured up in Memory, which indeed is the very Act of Memory. Therefore ſome have defined Memory, *Apprehenſio in Anima exiſtentium ſpecierum cum indagatione & inquiſitione*; An Apprehenſion of the Mind of thoſe Ideas that are in the Soul, accompanied by a Search and Inquiſition.

We muſt here make one Obſervation more; That as the *Peripateticks* commonly diſtinguiſh three diſtinct Things in every Faculty, ſo we muſt note the ſame in that of Memory. Firſt, there is the Faculty, Power or Ability of Memory, which we fancy to reſide in the Soul as in its proper Subject, and to produce Acts by that Organ appointed by our wiſe Maker, namely the *Cerebellum*. Secondly, to this Ability or Faculty belongs the Habit of Memory, which is acquired by repeated Acts; for there may be a Faculty in the Soul, which through Neglect or otherwiſe may be uſeleſs, and it often happens that the Faculty is perfected by a conſtant and continual Practice and Habit, whereas Slothfulneſs decays and ruines the moſt excellent Ability. The third Thing

ob-

obſervable in Memory, is the ſeveral Acts produced by the Faculty, which at laſt make up an Habit. We ſhall find this Diſtinction to be of ſome uſe in the following Chapters.

Now the Seat of Memory is generally acknowledged to be in the hinder part of the Head, which we call *Occiput*, in the third Cloſet, named *Ventriculus*, *Puppis*, or *Cerebellum*. For as all the Naturaliſts are of opinion, that in the Brain there are three Operations of the Soul, the Imagination, Reaſon, and Memory; they have from the Direction of Experience, aſſigned to the two firſt the two greater Cloſets of the Brain, and to the latter the leſs and hindermoſt. For I need not buſy my ſelf to prove that all the Functions of Life have their particular Organs; and the Soul acting little or nothing without the concurrence and aſſiſtance of the Body, our wiſe Creator hath appointed the ſeveral diſtinct parts where the Spirit is to move and act, to produce the differing Actions of Life; according to that old and approved Saying of the Phyſicians,

Cor ſapit, & pulmo loquitur, fel ſuſcitat iras,
Splen ridere facit, cogit amare jecur:

The Heart is the Seat of Wiſdom, the Lights are employed in Speaking, the Gaul moves us to Anger, the Spleen inclines to Laughter, and the Liver to an Amorous Temper. Thus in this Cloſet of Memory the Soul treaſures up the Ideas of Things, making uſe of a clear and ſubtile Spirit, aſcending from the Heart, to form the Impreſſions, which contain either a longer or ſhorter ſpace, anſwerable to the Temperature of the Body, and the Largeneſs of this Cloſet: For they have obſerved, that ſuch have a capacious Memory whoſe hinder-part of the Head is larger than ordinary; but when that part is otherwiſe, plain, and narrow, ſuch Perſons are ſeldom gifted with a rich and an officious Memory. It is moſt certain that the good or evil Diſpoſition of the hindermoſt part of the Head contributes much either to the largeneſs or ſhallowneſs of Memory. For when that part of the Brain is ſound, and the Paſſage open and wide, by which the Spirits aſcend up to it with Eaſe, and without any Obſtruction, ſuch Men are quick of Apprehenſion, and their Memory is the more happy, and the more ſuſceptible of the Ideas. But if the way be obſtruct-

obſtructed that conveys up the Spirits, or if there be any natural or caſual Defect in that part, they will quickly find it by the decay of Memory. Some having received a conſiderable Blow in that ſide of the Head, as a Greek Author relates, forgot all their neareſt Relations. And it is reported of *Meſſala Corvinus* the Orator, that by an Accident he became ſo ſtupified as to forget his own Name. The Caſualties therefore that may happen to this excellent Faculty, by the Prejudices to which this part of the Brain is ſubject, ſhould awaken our Care and Diligence to preſerve aud defend it.

But as the Parts of the Body, and the Soundneſs and Perfection of the Brain, are great Helps to a good Memory; they have cauſed the Naturaliſts to divide Memory into Natural and Artificial. The Natural is when the Perſon hath this great Advantage from his Natural Parts, without any help from his own Induſtry, and when his wiſe Maker hath beſtowed upon him all the inward Qualifications needful for a large and happy Memory. The Artificial is that which is acquired by our Care, Study, Invention and Labour. For it is the Opinion of *Cicero*,

That

That the goodneſs of our Memory proceeds not always from our Natural Perfections, but ſometimes from the Contrivance and Art of Man. And our Experience can verify the ſame, that Memory is capable of increaſe and decreaſe; and that the Art of Man may add much, and accompliſh this excellent Ability. However, if we offer to neglect, and ſuffer this rare Faculty to be unpoliſh'd and covered over, as it were, with the Rubbiſh of Idleneſs and Debauchery, when God and Nature have been bountiful to us in this reſpect, we cannot expect to uſe it with that Advantage, as others who have laboured to increaſe their Maker's Gifts by their Study and Induſtry. Of ſome it hath been reported, that they had prodigious Memories. *Mithridates*, that famous Enemy of the Roman State, was once a King of two and twenty Kingdoms, where ſo many differing Languages were ſpoken; which he underſtood ſo well, that he could ſpeak every one of them, and to all his Subjects, without an Interpreter. The Great *Cyrus* had ſo large a Memory, that he could call every Souldier of his numerous Army by his proper Name. Likewiſe *Seneca* tells us

of

of himſelf, that he could repeat 2000 diſtinct Names that had no dependance. And in our late Days, the Cardinal *du Perron* was able to repeat, without miſſing a Word, two hundred Verſes which were ſpoken before *Henry* the Fourth by a famous Poet, and never heard nor ſaw them before. Likewiſe in our Age and Nation, ſome carry with them whole Libraries in their Memory: Which in reaſon cannot be expected, unleſs Men endeavour to improve this rare Gift of God by a continued Exerciſe. I need not inlarge upon the Uſefulneſs and Excellency of Memory, to incline Men to the practice of the Means to attain to it. All other Abilities of the Mind borrow from hence their Beauty, Ornaments, and Perfections, as from a common Treaſury: And the other Capacities and Faculties of the Soul are uſeleſs without this. For to what purpoſe is Knowledg and Underſtanding, if we want Memory to preſerve and uſe it? What ſignify all other Spiritual Gifts, if they are loſt as ſoon as they are obtained? It is Memory alone that enriches the Mind, that preſerves what Labour and Induſtry collect, which ſupply this Noble and Heavenly

Being

Being with thoſe Divine Excellencies, by which it is prepared for a Glorious Immortality. In a word, there can be neither Knowledg, neither Arts nor Sciences, without Memory: Nor can there be any improvement of Mankind, either in reſpect of the preſent Welfare, or future Happineſs, without the Aſſiſtance and Influence of this Supernatural Ability. Memory is the Mother of Wiſdom, the common Nurſe of Knowledg and Vertue, as the Poet very well hath expreſs'd,

Sophiam me vocant Græci, vos ſapientiam,
Uſus me genuit, mater peperit memoria.

But as theſe Lines are deſigned for the Benefit and Encouragement of their Memories chiefly who are to appear in the Pulpit, or at the Bar, to ſpeak in the Audience of the People; I need not tell them with St. *Auſtin*, *Memoria in primis oratori neceſſaria*, That there is no Ability more uſeful to an Orator than Memory: For it gives Life to what is ſpoken, and makes a deeper Impreſſion in the Minds of Men; it awakens the dulleſt Spirits, and cauſeth them to receive a Diſcourſe more

more kindly than otherwiſe; it adds a Grace, and an extraordinary Excellency, both to the Perſon and his Oration, and is the greateſt Ornament of that part of Rhetorick that we commonly name *Pronunciatio.* So that if there is any thing worthy to be eſteemed or valued in that Art, ſo uſeful in a Common-wealth, 'tis all borrowed from Memory alone; which gives the greateſt weight and efficacy to the Words that are ſpoken. It is reported of *Eſchines*, that when he came to *Rhodes*, he read to the Inhabitants a famous Oration of *Demoſthenes*, which they very much admired, tho pronounced without the Grace of an Orator: But ſaid he to them, *Quid ſi ipſum audiſſetis?* How much more would you admire and eſteem this Oration, if you had heard it from his own Mouth? But our daily Experience can declare more of the Excellency of this rare Ability.

I ſhall therefore proceed to examine what Temper is moſt agreeable with a good Memory.

CHAP.

CHAP. III.

The Temper or Diſpoſition of the Body beſt and worſt for Memory, with the Natural Cauſes and Reaſons of both.

MEmory is named, or rather deſcribed, by *Plato*, that great and famous Philoſopher of his Age, the Soundneſs of the Senſes, becauſe the Soul making uſe of the Senſes of the Body to receive the Impreſſions of Things, the Memory is either larger or narrower, greater or leſs, according to the good or ill Qualities of the Senſes, and the Ideas are more or leſs laſting in Man. However, 'tis moſt certain that in general it is requiſite for a good Memory, that the Body be in a perfect Health; for if either the whole be diſtemper'd, or any part be diſeaſed, the Sufferings are communicated to every Member, and all

all are ſenſible in ſome reſpect of the Pain with the diſaffected Part; and the Diſeaſe, whatever it be, diſorders the Functions more or leſs, according to the nearneſs of Communication. Some Diſeaſes have that evil Influence that they totally deprive us of our Memory for a time, as thoſe that ſeize upon the Head and Brain, and ſuch as diſtemper the Nerves and Veins that are uppermoſt, and corrupt the Blood and Spirits which are uſed for the Exerciſe of Memory. Beſides, when any part of the Body is diſeaſed, the Mind is diſtracted, and cannot ſo readily perform that Office, as when it enjoys a perfect Tranquillity free from the Avocations of Maladies and Pain. Likewiſe, if the Spirit be diſturbed by the violent Paſſions of Anger, Fear, Deſpair, *&c.* the Exerciſe of Memory can never be ſo free, becauſe it requires a ſedate and quiet Temper of Mind as well as a Soundneſs in the Body. All the Alarms and Troubles of the Soul blot out the Ideas that are already entertain'd, and hinder others from coming in. They obſtruct all the Paſſages; and the Crowd of Thoughts that in ſuch Caſes ariſe is a great hindrance to Memory.

But

But the Learned obſerve, that two Tempers of the Body or Brain are Enemies to a good Memory, and that ſuch can never expect any great Advantage from this Ability that in thoſe caſes is naturally diſinabled. The firſt is a Temper extraordinary Cold, for thereby the neceſſary Motions are ſtopt, and the Paſſages for a ſpeedy Conveyance frozen, and the Imagination as it were benumm'd. So that as a convenient Heat of the Body is a notable Help to an active Memory, a cold Temper can never be ſo quick in Apprehenſion, nor receive the Impreſſions that are offered. Therefore a noted Phyſician names Cold the Mother of Forgetfulneſs, and declares that there can be nothing more pernicious to Memory, either to the admittance of the Ideas, or to the making uſe of them, than an inward or a too violent and ambient Cold.

The ſecond Temper unfit for Memory is Moiſt, when a too great Humidity ſeizes upon the Brain, as in Drunkenneſs, Intemperance, and Defluxions; Memory in ſuch a caſe may quickly receive an Impreſſion, but it will as ſpeedily loſe it: As a Ship at Sea running ſwiftly through

the

the Waves, leaves behind a Track, which is almoſt aſſoon loſt as made, ſo that no ſign can be found of its Paſſage through that fluid Element. So the Moiſture of the Brain may be ſuſceptible of an Idea for the preſent, but 'tis not laſting, nor is there any ſign a little after of any ſuch matter. Thoſe Perſons may remember the things near at hand, but they ſeldom call to mind that which hath been long ago done.

I might add a third Temper very much unfit for Memory, that is, an extraordinary dry Brain, or a corrupt Diſpoſition of Body, proceeding from too much Heat and Drineſs: for tho theſe two Qualities are neceſſary Aſſiſtants of a good Memory, both for Reception and Retention, yet when they exceed the Preſcript of Nature, they muſt needs be offenſive to Health, and conſequently to the Practice of Memory. It is therefore needful for this purpoſe that the four Qualities of the Body be in an *Equilibrium*, in an equal Ballance; becauſe this Equality ſerves very much for a more ready Formation of the Ideas, and inables the Organ the better to receive and retain them. But of the four Qualities it is

obſerved, that Cold and Moiſt are the moſt deſtructive to Memory; an exceſſive Cold being the greateſt Enemy of Nature, and of its Preſervation. For Humidity, it cannot be expected that when the Brain is drowned in Liquor, or overflows with Humours, that in ſuch an Inundation Memory can act and perform its Duty with that Exactneſs, and in that Perfection that it can at other times, and in a better Temper. Now 'tis not difficult to underſtand what Quality is predominant by theſe following Experiments: Firſt, by our Sleep; for if we are more inclinable to it than ordinary, it is a ſign of a wet and moiſt Brain, that makes us heavy and drowſy; but if we cannot take our uſual Reſt, it is an evident Token of a dry Temper. Beſides, this Humidity falls down into the Palate by an extraordinary Spittle, breaks out of the corner of the Eyes, and evacuates it ſelf through the Noſe and other Conveyances from the Brain, in a greater abundance than is uſual. But if the Brain be too dry, you will not be able to cloſe your Eyes as formerly, you will find a Lightneſs in the Head, there will be ſeldom any natural Evacuations, and the

Eyes

Eyes will appear ſunk into the Head, and the Excrements of the Ears will encreaſe. This is the Caſe of ſuch as grow in Years, which cauſeth old Age to be leſs ſuſceptible of new Impreſſions in their Memory, but to be more retentive of thoſe that are there already: So that all the Paſſages of their youthful days they can quickly call to mind.

But if an inward Cold predominates, it will appear by theſe Signs: The Face will ſeem very white, the Eyes languiſhing, the Veins will ſcarce be ſeen; a Cold may be felt about the Parts next to the Head, and a Dulneſs and Stupidity ſeizeth in ſuch a caſe upon the Spirits and Brain; ſo that by this means Men are rendered leſs fit for Action. Now it is obſerved by Phyſicians, that the Brain is naturally hotter in Summer than in Winter, unleſs it be when ſome Diſtemper increaſeth the internal Heat, and augments it the more by reaſon of the ambient Cold.

If too much Heat be in the Brain, it may be perceived by theſe infallible Signs. All the Parts about the Head will be hotter and more red than ordinary, the Eyes will be rolling and

fiery, the Temples burning, and the Perſon cannot be inclinable to ſleep, becauſe all the Vapours that cauſe Drowſineſs are conſumed by that internal Heat, and dried up as ſoon as they enter the Cloſets of the Brain. From what hath been ſaid it is moſt certain, that a moderate Temper, where all the four Qualities correſpond and agree in an Equality, is the moſt fit for the Practice of a good Memory; and when any of theſe exceed the natural Proportion, both the Health and Memory alſo are impaired in that Body, and rendered more unfit for Exerciſe. In ſuch caſes therefore the Phyſicians Art may be very uſeful to reſtore Health, to rectify the Brain, to remedy the Temper, and remove the ſuperfluous and pernicious Quality, and conſequently it may preſerve, increaſe, inlarge and help Memory. For as it is moſt certain that divers Diſeaſes deſtroy this Ability, or diſinable it; ſo it is unqueſtionable that ſeveral Remedies may aſſiſt, comfort and corroborate this excellent Faculty, which requires a good Diſpoſition of Body, a careful Government of our ſelves, and an Abſtinence from the Extravagancies and Debaucheries of the Age.

Now

Now in ſome Caſes 'tis impoſſible to remedy a decay'd Memory, as when Nature fails through ſome violent Diſeaſe; when an extraordinary Heat and internal Drineſs hath corrupted the vital Parts, or the Cloſet of Memory, and filled it with infected Spirits; or when old Age brings a Diminution to our Strength, Vigor, Abilities, and all our Natural Parts decay with our Body. 'Tis then in vain to attempt by Phyſick to help or remedy that which is naturally loſt and periſhed. However in ſuch Caſes we may preſerve what remains of Memory by a regular manner of living, and by ſuch Food as may expel the inward Drineſs and Cold, and comfort the Brain with a Recruit of wholſome Spirits, proceeding from the Eaſineſs and Quickneſs of Digeſtion.

CHAP. IV.

Some General and Phyſical Obſervations and Preſcriptions for the remedying, ſtrengthning, and reſtoring a Memory injured by the ill Temper of the Body, or the Predominancy of one of the four Qualities in the Brain.

THE Excellency of Memory, as we have taken notice, depending wholly upon the Health and good Diſpoſition of the Body, 'tis not to be doubted but that which reſtores Health to the one, is by conſequence uſeful and aſſiſting to the Welfare and Operations of the other. Chiefly, if the Head or Brain be any ways damnified, incumbred or prejudiced, ſuch Medicines as are proper to remove the ill Qualities, or to reſtore Soundneſs, are alſo proper to help Memory: Divers therefore are preſcribed by the moſt eminent

nent Phyſicians, anſwerable to the ſeveral Diſtempers of the Brain, and the Cauſes from whence they proceed.

Firſt; If by reaſon of extraordinary Looſneſs and immoderate Evacuations, or of any internal Drineſs, the Memory be prejudiced, we muſt ſeek a Remedy from a convenient Diet, which may ſtrengthen the Body, and comfort the Spirits and Senſes. In ſuch a Caſe juicy Meats are to be uſed, and ſuch as are of eaſy Digeſtion in the Stomach; good and wholſome Drinks are to be taken, as Claret Wine, Metheglin well made, *&c.* We are likewiſe to exerciſe our Bodies moderately, and without being tired; we ought to rub the Head and Temples ſoftly with Woollen Clothes, and endeavour to reſtore the Body to its ordinary Temper by Sleep, Bathing, and other natural Means. But if the Brain and Memory be injured by reaſon of an internal Cold, Heat muſt be applied to expel it (as Humidity is uſed to remedy the Drineſs of the Temper) but always with a convenient Moderation; for we muſt take heed that we heat not the Brain too much, nor totally dry up the internal Humidity, for fear of falling into a more

dangerous Diſtemper, which may deprive us both of Life and Memory together. When the Brain is out of order by reaſon of Cold and Moiſture, the Air is to be choſen for the Patient to live in which may be hot and drying: and in wet and cold miſty Weather, the Chamber or Dwelling where he is, ought to be perfumed with hot and odoriferous Herbs, as Sage, Marjoram, Lavender, Roſemary, Thyme, wild Thyme; and let a Smoak be made of ſome of theſe well-ſcented Herbs in the Chamber, together with Juniper, (for ſuch Perfumes will dry the Air, and help the Brain) chiefly of that *Indian* Amber that is named the Gum of the Soul. The Diet ought to be according to the Diſtemper, of ſuch Meats as are of an eaſy Concoction; and tho ſome Phyſicians forbid cold Sallets, I ſuppoſe they may be of great uſe, chiefly in the Spring and Summer, to ſome hot Stomachs, as Lettice, Purſlane, Spinage, Corn-ſallet, Cichory, Endive, and *Naſturtium*; the latter being good to ſtir up the Spirits, and a natural Remedy againſt Sloth; from whence comes the old Direction to a Sluggard, *Vade & ede Naſturtium.* Likewiſe it is very proper in

in many Diſtempers of the Brain, to open a Vein, and free the ſuperiour Parts from the over-flowings of Blood, and to give a gentle Purgation, either by Potions, Pills, or other uſual Means, according to the Advice of experienced Phyſicians, and the Nature of the Diſtemper. Now ſuch Diſeaſes incident to the Brain are either in the Cavities, or the Subſtance of the Brain; in the firſt are chiefly theſe, *Vertigo*, *Catarrh*, *Epilepſia*, *Apoplexia*, *Palſy*, *Convulſion*, *Trembling*: in the Subſtance are theſe, *Phrenzy*, *Melancholy*, *Madneſs*, Loſs or Hurt of Memory, ſleepy Diſeaſes, *&c.* All which, as they bring a preſent Prejudice to the Faculty of Memory, ſo they are to be removed and cured before it can act with Vigor.

But if the Diſeaſe proceeds from a too great Increaſe of the Humours, ſuch skilful Phyſicians are to be conſulted, and proper Remedies are to be applied for the correcting and removing of thoſe Humours, as Bleeding, Purgations, Gliſters, Vomits, Iſſues, *&c.*

Now 'tis moſt certain that divers Ointments, Snuffs, Perfumes, Plaiſters, and Medicines are applicable to the Head and Temples, for curing ſeveral Diſtempers of the

the Brain: But this being a Subject that more properly concerns the Physician, I shall only advise the Patient to be very cautious in making use of Remedies for the removing of Diseases of the Head, which is a tender Part; and when once the Part or Organ is wounded, 'tis a very difficult Task to cure it, and without a Miracle it can never be made whole.

CHAP. V.

What is very much prejudicial to the Faculty, Habit, and Practice of Memory.

THE Memory residing in so tender a Part as the Brain, Nature hath had a particular care to preserve it from all Casualties by a thick Skull: It shews thereby what Esteem, Value, and Tenderness we are to have for that Part of the Body, and how much it concerns us to take heed it be not injured either by our

our own Miſcarriages, or by others Endeavours. Certainly we are worthy of blame if we ruin that moſt excellent and moſt neceſſary Part of our ſelves, and run wilfully into ſuch Actions as are hurtful to our Brain and Memory. Now it is obſerved, and we may underſtand it from our own Experience, that theſe following Particulars are prejudicial to Memory.

1. All Crudities, Repletion, and Indigeſtions of the Stomach; for they engender many dangerous Diſeaſes, diſorder the Brain, and ſend up infectious Vapours, which cauſe Pains in the Head, Giddineſs, and ſeveral other Diſtempers: conſequently they are pernicious to Reaſon and Memory, as St. *Ambroſe* tells us, *Cibus immodicus & Animæ & Corpori nocent:* An exceſſive Eating hurts both the Soul and Body.

2. Drunkenneſs is offenſive to the Brain, and all its Functions, becauſe it fills it full of Humours, and naturally cauſeth Forgetfulneſs. And as a Father expreſſeth himſelf, *Ebrietas Tempeſtas eſt tam in Animo quam in Corpore, & ſeipſam ignorat*; It is a Storm both in the Body and Soul, and cauſeth us to forget and be unmind-

ful

ful of our ſelves. Therefore the uſe of ſtrong Wines is dangerous, and a frequent ingorging and conſtant Debauchery turns Men into Sots and Beaſts, and weakens all the Operations of the Brain. I cannot but mind here what *Suetonius* writes of *Claudius Cæſar*, that by Drunkenneſs he had forgot what he had commanded but an hour before: for having ordered his impudent and lecherous Wife and Empreſs *Meſſalina*, to be put to Death, becauſe of her unſufferable and publick Adulteries, when he ſat down to eat Meat a while after, asked his Officers and Servants what their Lady was doing, that ſhe came not as uſually to Table with him. And the ſame Roman Author, with others, tell us of *Vitellius*, who when he came to the Empire, gave himſelf over to ſuch Debauchery and Drunkenneſs, that he loſt and drowned all his Memory and Reaſon.

3. A violent and outward Cold in the Night-ſeaſon offends the Brain, if the Head be not well covered. Therefore for the better Preſervation of the Seat of Memory, it is convenient to keep our Heads warm, according to this French Direction, *Gardez chaux les pieds & La teſte*,

teſte, audemeurant vivez en beſſe; keep warm the Feet and the Head, but for the reſt live as the Beaſts.

4. To take cold and wet in the Feet in Winter-time weakens the Eye-ſight, and injures the Memory, becauſe of that great Correſpondence that there is between theſe two Extremities, the Head and the Feet.

5. An extraordinary and hot Air, or a burning Sun, diſturbs the Mind, and prejudices Memory, if we ſuffer it long to work upon us.

6. All windy Foods and Drinks are not good for the Aſſiſtance of Memory, but rather contrary, unleſs Nature carries them ſpeedily off in the ordinary courſe.

7. We muſt avoid eating in the Evening ſuch things as may increaſe too much the aſcending Vapors, and cauſe a too great Humidity in the Brain, or may be of an ill Digeſtion, or may too much fume up into the Head: for tho ſuch things may incline to Sleep, they may have a bad Effect upon the Seat of Memory; and remember theſe ſeaſonable Verſes,

Ex magna Cœna ſtomacho ſit maxima pœna,
Ut ſis nocte levis, ſit tibi Cœna brevis.

8. Forbear drinking too much immediately after eating, chiefly after Supper, for that will but ſpoil and hinder Digeſtion, and will prove offenſive to the Brain and Memory.

9. An extraordinary Idleneſs and Lazineſs of Body begets and encreaſes ill Humours, which have bad Influence upon the Faculty of Memory: Therefore a moderate Exerciſe becomes us as Men, and is very uſeful for our Health, and the Safety of our Being; as an antient Philoſopher taught his Diſciples, by telling them, that *Exercitium confert ad Corpus & Animum*; that Exerciſe is profitable both to the Body and Soul.

10. Forbear ſleeping immediately after a plentiful Supper or Dinner, before the Food hath paſt down from the Orifice into the bottom of the Stomach; for there is nothing more pernicious, becauſe it prevents the working of Nature, and cauſeth often the good Food to become bad, and to diſturb both the Body and Mind.

11. A too frequent and violent uſe of *Venus*, when the Stomach is altogether empty, or too full, or contrary to the Rules of Conjugal Chaſtity and Religion, is very dangerous, not only to the Body, but alſo to the Soul, and all its Faculties: For ſuch an irregular Act draws a Curſe after it, and obligeth our juſt and wiſe God to withdraw his Bleſſing from ſuch Contemners of his Laws, enacted for our Safety and Preſervation.

12. Fear, Sadneſs, Anger, violent Paſſions, and melancholy Thoughts are no Friends to Memory; for they diſturb the Mind, diſquiet the Soul, and diſorder all the Faculties.

13. A too violent Vomiting is deſtructive to Memory, becauſe it forces Nature, and diſcompoſes the Brain.

14. A diſquieted Mind can never make uſe of Memory, tho the Faculty may be good, and aſſiſted by Exerciſe, and ſtrengthned by Habit; yet while the Soul is alarm'd, and diſſatisfied, it can never in the midſt of its Troubles uſe its Memory with Freedom, and ſo well, as in a more peaceable Temper and Diſpoſition.

15. All

15. All ſuch Motions of the Body as cauſe Giddineſs, or Swimming in the Head, are deſtructive to Memory. Therefore we ſhould have a ſpecial care to avoid Falls from high Places, turning round, or Blows upon the hinder part of the Head. For, if we may believe *Thucidides*, ſome by that means, in the Grecian Wars, loſt totally the uſe of their Memories: For by that Violence the Seat of Memory received ſo great a Prejudice, that the Faculty could make no uſe of it; and the Contuſion was ſo great, that the Brain was diſturbed, and could receive no more Impreſſions, nor preſerve them that were there before.

Theſe Experiments are not to be neglected, by thoſe who deſign to attain to a Perfection of Memory; for they are of dangerous Conſequence, as our Experience can witneſs, to the Faculty of Memory, and to the other Functions of the Brain.

CHAP.

CHAP. VI.

Of ſuch Natural Things as may be aſſiſting to, and may comfort Memory, from the Procurement of Nature, and the Contrivance of Art.

GOD and Nature have beſtowed upon us Faculties and Abilities, and with them Means to inlarge and aſſiſt them in the performance of their ſeveral Offices. As there are ſome things to be avoided, which may be pernicious to them, ſo there are others to be uſed and employed for this good purpoſe, for a more ready Execution and Diſcharge of their Duties and Functions. Memory, this excellent Ability of the Soul, may meet with many Helps in the Courſe of Nature to ſtrengthen it, and render it more perfect. I ſhall recommend theſe following.

1. A moderate and convenient Exerciſe of Body before we ſit to Meat, to

prepare the Stomach for a more hearty Reception, and a better Digeſtion, is uſeful not only to the Faculty of Memory, but to all other Animal Functions; for from thence proceed thoſe good Spirits which help all the Offices of the Brain, and make it more able to act with Vigour: Such an Exerciſe, I mean, as may be anſwerable to the Abilities, Calling, and Employment of the Perſon; ſuch an Exerciſe as may free us from all Natural Superfluities, which may incommode, incumber, or burden Nature.

2. It becomes us to feed upon ſuch temperate Meats as may agree with our Stomachs as well as our Appetites, and to eat and drink with that Moderation, as may tend to ſtrengthen and not to deſtroy Nature: for as there is nothing more pernicious to the Faculty of Memory than Exceſs, Drunkenneſs, and Gluttony, ſo there is nothing that can better preſerve it than a ſober uſe of thoſe good things that Nature affords to ſupply the daily Deficiencies, and corroborate our Strength.

3. There are ſome things that may hinder the ill Fumes of the Stomach from aſcending higher, which are uſeful to ſtrengthen Memory after a plentiful Repaſt,

paſt, as Stiptick, Fruits well prepared by Art or Nature, Coriander Seed well preſerved with Sugar, and other Things.

4. A moderate Joy and Contentment of Mind is very profitable for the preſerving and fortifying this Ability of Memory: For if the Soul be uneaſy, all the chief Faculties are diſturbed, more eſpecially Memory, and render'd more unfit for Action.

5. To waſh our Feet often in hot Water, wherein we have boiled ſome Camomile, Lawrel, Balm-mint, and ſome other odoriferous Herbs, is very comfortable to the Brain, the Eyes, and the Memory: For beſides the good effect the hot Liquor hath upon the Head, the Scent of ſuch Herbs ſerves very much to refreſh the Spirits, and comfort the Brain. Therefore in Summer the ſmell of Roſes, and other fragrant Flowers, is not uſeleſs, but advantageous to this purpoſe.

6. A convenient Purgation of all Superfluities of Nature is likewiſe helpful to the Faculty of Memory: for when there is a Stoppage of that which ought to be caſt out, there is a Burden that is not only troubleſom to the Perſon, but

alſo of a dangerous Conſequence to the Health and Life, and to all the Superiour Faculties and Functions that are thereby hindered in their Actions and Operations.

Now Phyſicians inform us, that this tender part of Man, namely the Brain, is injured and prejudiced by three Means. Firſt, By a violent breaking in of the Excrements of the Body, or of any part of it. Secondly, By nouriſhing and harbouring ſome ill Quality. Thirdly, By retaining the uſual and natural Purgations, when they have not their ordinary Courſe by the common Paſſages appointed by our wiſe Maker: For as there are continual Vapours aſcending to the Brain from the inferior parts, deſigned for the nouriſhing and aſſiſting the Brain in the ſeveral Functions of Life; ſo there muſt be ſome Evacuations for that which is ſuperfluous and uſeleſs in Nature, to be voided. Now theſe Vapours, if they have any ill Quality, or are any ways offenſive to the Brain, do quickly hinder the Operations of Life and Reaſon. For there is no part of the Body more tender than this, no Part is ſooner and more ſuſceptible of pernicious Fumes and

and Vapours than the Brain. Our good God therefore hath provided, amongſt the Natural Things, a great many Antidotes, and comfortable Herbs, *&c.* which are proper to help and reſtore the Brain to its uſual Temper and Perfection, and conſequently to aſſiſt and preſerve Memory. Now amongſt the Natural Things, and thoſe that may be prepared by Art for the uſe of Memory, are either Pouders for the Head, or Pouders to ſnuff up in the Noſe; Plaiſters to apply to the Temples or other part of the Head; Bathings, Drinks, Fruits, Confections, Smells, Purgations, Ointments, *&c.*

1. Of Pouders to dry up the Humours of the Head, and cleanſe the Hair: they are very uſeful for the ſtrengthning of the Memory, when the Perſon is of a moiſt Temper, and that he finds a too great Humidity to burden the internal part, and diſturb his Fancy; or if he be often afflicted with a *Cephalalgia*, proceeding from Cold or Vapours. But ſuch Pouders are to be made of Odoriferous Herbs, and well ſcented, which may be pleaſing to the Smell. *Riverius* preſcribes for this purpoſe, this excellent Pouder.

Pulveris Ireos Florentini, ℔ ſs; *Storacis, Benjoini, ana* ℥ ii. *fiat pulvis tenuiſſimus capillis inſpergendus in lecti introitu, & mane pectine decutiendus; ſi efficaciam intendere vòlueris, adde caryophillos, nucem moſchatam, & cinamomum.*

2. Sneezing Pouders well prepared are of great uſe, but may prove pernicious if any thing is offenſive to the Brain in the Compoſition. Now the ſame Author recommends the dried Leaves of Marjoram, Sage, Roſemary, the Roots of the Herb *Pyrethrum*, of Lingwort perfumed with Musk, to be a choice Sneezing Pouder, to comfort the Brain and Memory. And the Herb *Galangal* well dried, and reduced to Pouder, is very uſeful to ſtrengthen Memory. Another good Sneezing Pouder may be made of Pepper, with the Herb *Condiſi*, white Lingwort, and Lillies, with ſome perfumed Gums. But we muſt have a care not to offend Nature by a too frequent uſe of theſe or other Snuffs, which may prejudice the Brain.

3. And as all noiſome Smells are hurtful to the Brain, and when they are continually taken are infectious; ſo there is a great Benefit to be expected from good

and

and wholſome Scents, as of Flowers, Perfumes, *&c.* This is excellent to comfort the Brain; Take *Lign-aloes*, Frankincenſe, Gum-maſtix, Red Roſes, Leaves of Betony, Cinamon, Mace, Spice, Cloves, with *Styrax*; and with all this make a Pouder: caſt it on a Chafing-diſh of Coals in a Morning, and it will wonderfully comfort the Brain and help Memory.

4. Divers Plaiſters, when we find a Decay in Memory, may be uſeful for the helping the Brain: As a Plaiſter made of Muſtard-ſeed, and clapt to the hinder part of the Head, or the Oil of Muſtard-ſeed when applied to that Part. Or if you pleaſe to be at greatef Expence, take Florentine, Lillies, the Herbs *Hermodactyle* and *Pyrethrum*, Leaves of the wild Vine, Pigeon-dung, Muſtard-ſeed, of each an Ounce; mix them with *Moſchata* Nuts, Spice, Cloves, Cinamon, and Pepper, and make a Plaiſter, which you may likewiſe apply to the hinder part of the Head, and you will find it will increaſe and help Memory. And a certain famous Author aſſures us, that the Gall of a Partridg anointed about the Temples does wonderfully ſtrengthen the Seat of Memory; as alſo the

Brains of Birds and Fowls roaſted, and chiefly of Hens, are not uſeleſs for the ſame purpoſe.

5. If you pleaſe to try this Experiment, you will find it of great uſe, as ſome Learned Phyſicians tell us; Take the Seed of *Orminum*, and reduce it to Pouder, and every Morning take a ſmall quantity in a Glaſs of Wine. And they ſay that the Shavings or Pouder of Ivory produce the ſame Effect, namely, the corroborating of the Brain and Memory; as likewiſe a Grain of white Frankincenſe taken in a Draught of Liquor when we go to Bed, dries up the offenſive Humours of the Brain. And it hath been obſerved, that the Application of Gold to that *Sutura* which divides the Seat of Memory from the other Cloſets of the Brain, ſtrengthens the Weakneſs of the Head, drives away all Pain, and hath a wonderful Effect upon the Faculty of Memory.

6. There are ſome Ointments to be made for the ſame Intent, as this; Take of the Fat of Hens or Capons, together with the Fat of a Cow, and Gum of Ivy, of each a Pound; which being diſtilled in a Lymbick with a ſoft Fire into an Oil,

Oil, is very good to anoint the Temples and the Wriſts three times a Week. Here is another Ointment which *Ariſtotle* is ſaid to have often uſed for the ſtrengthning of his Memory: Take of the Fat of Moles, Bears if it be to be had, of Weeſel and Bever, or inſtead of that of Otter, of each an equal Quantity, Juice of Betony and Roſemary; of all which make an Ointment to anoint the Temples chiefly in cold Weather.

A famous Author tells us, *Ut profundè Memoria teneas, & perpetuò utq; velociter apprehendas, hoc uſi ſunt multi magni Viri: Recipe radicum linguæ bovinæ, radicum valerianæ, ana uncias quatuor; radicum rutæ uncias duas; fac inde pulveres ſubtiliſſimos: poſtea recipe ſuccum euphragiæ, ſclareæ ſive ormini, berbenæque, ana uncias quatuor; coletur bene ſuccis per pannum: poſtea miſce ſuccos ſimul, & pulveres ſeparatim: poſtea recipe medullam anacardorum unciæ unius pondere, & fac pulverem ut ſupra. Item recipe linguæ navis, id eſt ſemen fraxini, & fac pulverem ſubtiliſſimum: poſtea miſce omnia prædicta ſimul, ſcilicet ſuccos & pulveres, & accipe ſartaginem terream vitreatam, & pone ad ignem, intuſq; pone ex urſi pinguedine, & funde ſeu liquefac*

paula-

paulatim, & intos projice dictos pulveres, cum ſuccis miſcendo, ſemper apponendo de dicta pinguedine, quouſq; fiat Unguentum ſubtiliſſimum; quo unge tempora, & partem Memoriæ, & frontem, & verticis partem verſus nucham; hocq; ter vel quater in anno facies, & continuabis ſic ungendo etiam, prout magis aut minus oportebit. Hoc enim in virtute excedit ſuperſtitioſam artem notoriam.

Again, another Experiment may be tried for the ſame purpoſe. *Recipe octo calices aquæ communis, foliorum hederæ, ſtichadis, ana lib. unam ſemis; ponantur ſimul in aqua, ad bulliendum fere ad conſumptionem aquæ; poſtea coletur benè, & exprimatur, & intus pone modicum terebinthinæ lotæ cum roſaceo: poſtea caput lava cum bono lixivio, & poſt ſiccationem unge cum prædicto liquore tempora & occiput.*

The ſame Author recommends to us the making of this perfum'd Apple for the comforting of the Brain and Memory. *Recipe Ladani, ligni Aloes, Styracis, ana drach. unam; Caryophillorum, nucis moſchatæ, ſeminis Ozimi, ana drach. ſemis, cum aqua roſacea, in qua nonnihil Moſchi & Ambari diſſolutum ſit; fiat pomum.*

Ano-

Another Preſcription we find recommended to us by a worthy Author in this manner. *Ad habendam profundam memoriam, vel ſiquis eam ex debilitate vel infirmitate amiſiſſet; valet etiam Vertigini. Recipe Roris marini, id eſt Libanotidis, Boraginis, Chamæmeli, Violarum, Roſarum, ana unciam unam; foliorum Lauri, Majoranæ, Salviæ, ana uncias duas: omnia incide, & pone in optimo Vino, & poſt diem deſtilla per alembicum vitreum aut vitreatum; & deſtillatum ſerva, in quo pone Terebinthinæ odoratæ lib. unam, Thuris albæ uncias octo; Maſtichis, Myrrhæ, Bdellii, Anacardorum, ana uncias quatuor: omnia tere, & dimitte ſic ſtare per dies quinque cum deſtillatione cooperta; poſtea deſtilla in tantum cum igne fortiori, donec ex eis oleum habeas, quod ſerva bene-clauſum in ampulla vitrea, bene cum cera & pergamento obturata. Modus uſus talis eſt: Recipe ex eo quantum caperet cortex avellanæ per os, & unge etiam partes Memoriæ, ſcilicet occiput, & quaſvis partes jam dictas: optimum experieris.*

Some Phyſicians order Pills for the uſe of Memory to be made in this manner. *Recipe Cubebarum, Calamintbæ, Nucis moſchatæ, Caryophillorum ſing. drach. unam ſemis;*

ſemis; Thuris optimi, Myrrhæ electæ, Ambari orientalis ſing. ſcrupulum unum ſemis, Moſchi grana quinque, cum aqua Majoranæ: pilulas confice; recipe unam hora decubitus, duas vero in ſolis ortu, horis quinque ante Cibum, Hyeme per menſem, Vere & Autumno rariùs.

Aliud probatiſſimum Experimentum ad Ingenium & Memoriam, quod ferunt eſſe Ariſtotelis. Recipe urſi pinguedinem, quam habet in humero ſeu ſpatula dextra, eamq; repone in veſica ipſius urſi, ſimul cum ejus urina, & ſimul ſtent octo diebus: tum extrahe & accipe ſuccum Ormini, ſive Sclareæ domeſticæ, Euphragiæ, Berbenæ, Bugloſſi, Valerianæ, Aloes, omnium æqualiter, & ſimul miſce cum prædicta pinguedine ſuper ignem, cum lignea ſpatula agitando quoad fiat Unguentum ſpiſſum; ex quo cum volueris accipe quantitatem parvæ fabæ, & unge frontem & tempora fricando aliquantiſper, & audita recordaberis.

Lixivium pro ablutione Capitis humidi frigidique comfortativum, & Memoriæ conferens, debet autem eſſe ex Cinere Sarmentorum vel Quercus, poſtea intùs hæc bullant. Recipe Acori veri, Stichadis, foliorum Lauri, Roris marini, Ivæ, Salviæ, ana manipulum unum; ex iſto lavato caput: poſt

vero

vero ablutionem aquæ vitæ modico ſinciput madefacito, & ſequenti pulvere aſpergito. Recipe Pulegii, Calaminthæ, Caryophillorum, Sandaracæ, Macis, Stichados, mentæ ſiccæ, Majoranæ, ana drach. quinque; miſce, & fiat pulvis ſubtilis, & poſt inſperſionem ſuperpone ſtupam canabis; aliis quoq; diebus ingrediens lectum, pone ſuper capitis bregmate ex pulvere illo etiam illoto capite, nam ſiccat, &c.

And *Ludovicus Mercatus* adviſeth to make this Water, which he ſaith has a wonderful Virtue for the reſtoring and ſtrengthening of decayed Memories. *Recipe Aquarum Bugloſſæ, Betonicæ, Florum Libiæ, ana lib.* 1. *Aquæ Vitæ optimæ, lib. ſs; Florum Anthos, Roſarum, & Majoranæ, & Florum Bugloſſæ, ana P.* j. *ſpecierum confectionis anacardinæ* ℥iiij. *infundantur flores in aquis ſuo tempore, & tandem ſpecies, & ſtent in loco ſolis vel digeſtionis per menſem, poſtea in Balneo extrahatur aqua, cujus noctu* ℥ij. *aut* ℥℥ *ſs. porriges vel accipies.*

CHAP.

CHAP. VII.

Rules to be obſerved for the Acts or Practice of Memory.

MEmory, as we have already obſerved, being an excellent Faculty or Ability of the Soul, it is by conſequence to produce Acts anſwerable to it ſelf; which Acts by degrees form an Habit, that ſtrengthens the Ability, and makes it more ready and able again to appear in Action: for the more we uſe this Ability, the more able and perfect we ſhall render it, whereas by Neglect and Sloth Men loſe this natural Gift, and it becomes uſeleſs.

Now for the better exerciſing of Memory, and for the accompliſhing this rare Faculty, I ſhall recommend theſe following Rules, which I ſhall deſire thoſe Perſons to obſerve and practiſe that intend to uſe their Memories either in a Pulpit, or at the Bar, or on any other occaſion where they deſire to deliver their

their Meditations without the Aſſiſtance of Book or Paper.

1. Let the Subject that we treat upon, or the Matter or Diſcourſe that we deliver, be rational and worthy of our own Eſteem: For the things that we admire, or that afford us Pleaſure in the reading or hearing of them, make a deeper Impreſſion in our Minds than thoſe things we value not. As this Faculty is noble, it retains willingly nothing but what is anſwerable to it ſelf: likewiſe any thing ſtrange and unuſual, or that which is ſutable to our own Genius and Temper, commonly finds in Memory a kind Reception, and a longer Retention. It is therefore the Advice which a wiſe Man recommends to young Students, *Sapientem audire Præceptorem, quem etiam cogaris admirari, plurimùm enim Memoriæ conducit*; To hear a wiſe Tutor whom we ought to admire, becauſe Admiration is a great Advantage to remember his Inſtructions. And amongſt the Keys of Wiſdom he reckons this to be one, *Honor Magiſtri*, a particular Reſpect not only for the Perſon of our Teacher, but a Value that we muſt put upon his Words and Directions, that we may treaſure them

them up for our own Uſe and Benefit: For tho Memory by the Naturaliſts is compared to a Sive, or (*reti ſimilis*) to a Net, 'tis in reſpect of thoſe weak and unfaithful Memories that never retain the things committed to their Cuſtody, and that loſe them as ſoon as they have them.

2. Let there be a Method and convenient Order obſerved, and a Coherence in the Diſcourſe that we deſign to deliver; for it will be far more eaſy to mind and remember what hath a mutual Dependance one upon another, than that which is without Order or Method.

3. Let every thing that we deſire to remember be fairly written and diſtinctly, and divided into Periods with large Characters in the beginning; for by this means we ſhall the more readily imprint the Matter and Words in our Minds, the more remarkable the Writing appears to the Eye. This Senſe conveys the Ideas to the Fancy better than any other; and what we have ſeen is not ſo ſoon forgotten, as what we have only heard. Therefore *Cicero* tells us, *in* 3. *de Oratore*; *Facilius ad ea quæ viſa ſunt, quam ad ea quæ audita ſunt Oculi Mentis feruntur*: That

That the Eyes of the Underſtanding, and conſequently Memory, are carried more eaſily to the things that are ſeen, than to thoſe that are heard.

4. Let theſe Characters, or Beginnings of every Period, be well imprinted in our Minds, for they will quickly bring thither the whole Diſcourſe alſo. No ſooner ſhall we think upon the firſt Entrance, but we ſhall have a proſpect of all the reſt in our Imagination. And it will be no ſmall Aſſiſtance to our Memories, if theſe firſt Letters of every Sentence or Period can luckily expreſs ſome known or remarkable Word or Thing in every Page. As *Buxtorf* in his Hebrew Grammar, that Students may remember the Letters which change their natural Pronunciation by the Inſcription of a *Dageſh*, hath gathered them together in the word *Begadkephat*. And that they might not forget thoſe Letters which are named *Quieſcentes*, that are written and ſometimes not pronounced, he hath put them together in the word *Ebevi*. Thus if we may happily join all the firſt Words of every Sentence ſo as to expreſs ſome remarkable Thing, or Subject, or Word, we ſhall remember more eaſily the Beginnings

ginnings of every Period or Sentence; and by taking every Letter in order one after another, come to the remembrance of all that is written in the Page without any difficulty; for the Beginning will lead us to all the reſt. This Direction may be of great uſe to weak and infirm Memories.

5. If we will have the Command of our Memory, and ſecure it from the frailty of Oblivion, or the apprehenſion of a Miſtake, it becomes us to have in our Minds well imprinted the Abbreviation of our whole Diſcourſe, and the chief Heads, ſo that in an inſtant we may be able to recollect and caſt our internal Eye upon any part of the Matter that ought to lie as it were before our Fancies; for in this caſe if any Interruption happens, or any Caſualty comes accidentally to diſturb the Series of our Diſcourſe, we ſhall be the more ready and better able to call to mind our Buſineſs, and proceed on with more Courage, Reſolution, and leſs fear of a Miſcarriage, becauſe we may be certain, that in an unexpected Weakneſs of Memory we ſhall have a Remedy at hand to relieve us in caſe of need, and we ſhall

ſpeak

ſpeak with more Confidence and Boldneſs, the more we ſhall know our ſelves ſecure from Frailty. Therefore it is *Seneca*'s Advice, that in a large Diſcourſe we ſhould have it abbreviated and contracted to certain principal Heads, for the prevention not only of Confuſion, but alſo of that Diſorder that multiplicity of Words and Matter is apt to cauſe in weak Memories.

6. Let there be a local Apprehenſion of our written Diſcourſe well fixed in the Mind, and in the Delivery of it let the Fancy proceed on, and the Imagination leiſurely dictate the Matter, and the Words as they are couched in our Paper. This local Apprehenſion is the greateſt help to Memory, and chiefly if the Characters, as we have formerly noted, be fairly written, and remarkable to the Eye and Fancy; for as they give a deeper Impreſſion into the Mind, they become more legible, and are not ſo ſoon defaced.

7. When we firſt intend to recover a Diſcourſe, and get it into our Memories, we ought to read it quietly with the greateſt Attention and Intention of the Mind, ſetting aſide all other Buſineſs which

which might incumber or interrupt us. We muſt for this purpoſe ſummon all our Thoughts to attend upon the Buſineſs in hand, and ſeriouſly read over every Period and Sentence; for without this Intention it is impoſſible to be able to imprint any thing well into our Imagination. And before we proceed on too far, it becomes us to get well a Part by Heart, that our Memories may go on more ſecurely and *gradatim*, by degrees.

8. Therefore it becomes us for this purpoſe to repeat often over what we have already learned, and ſoftly to utter every Sentence one after another. This Repetition will be of great uſe both for the getting it more perfect, and for the more eaſy delivery; for when the Tongue is accuſtomed to the Expreſſions, it will more readily deliver them again. And we find by Experience, that Verſes and other Diſcourſes that we have often ſpoken, when once we begin to deliver them, they drop from us inſenſibly; and, as a Man that is uſe to run in a Career, or down a Hill, we cannot ſtop till we come to the end.

9. After

9. After we have thus gotten into our Memory a Diſcourſe in the beginning, we muſt ſuppoſe that it is not confirmed in us, and muſt therefore run it over by a frequent Meditation, chiefly in the Evening when we are going to Bed, or in thoſe Intervals that we cannot ſleep; for then the Silence of the Night, and the Quiet of the Time, are very proper to ſtrengthen in Memory what we have committed to its Cuſtody. Theſe Meditations are eſteemed by *Ariſtotle* the greateſt Aſſiſtance of Memory; and *Ptolomey* calls Meditation the Key of Truth. Truly without this Practice a Diſcourſe can never be well digeſted, but will come from us raw, perhaps as a Leſſon from a School-boy; neither can we be able without it to make it our own, nor to give that Life and Virtue to it that is needful to affect the Minds of our Auditors. Therefore a Diſcourſe ought to have a convenient time to ſettle in our Memories, that they might often run them over by Meditation.

10. Let young Men take care to exerciſe their Memory betimes, for by a frequent Practice we gain and ſtrengthen the Habit of Memory. Let not the Diffi-

Difficulties that may appear in the Beginning fright or cauſe us to diſcontinue, but reſolutely proceed on in the accuſtoming our Faculty to retain both Matter and Words. I know ſome charge their Memory with nothing but the Matter, but it is as eaſy to mind the Words when once we have uſed our ſelves to the Practice. *Cicero* writes of *Lucullus* and *Hortenſius*, two famous Orators of the Roman Empire, who had vaſt Memories, that the former remembred Matter, the other Words, and prefers therefore *Lucullus* before *Hortenſius*: but I conceive that Orator to be the moſt accompliſh'd, who having penn'd his Diſcourſe in ſuch a manner, that it ſpeaks weighty Matter as well as Words, is able to deliver it *verbatim* with Deliberation and Vigor. *Seneca* tells of himſelf, that he could repeat two thouſand diſtinct Names one after another without any Miſtake, ſo large was his Memory, which proceeded from a long and continued Exerciſe; for by this means we ſhall attain to a great Perfection.

11. Beware of taking a Pride, and glorying in our Memory. As we are to uſe it in neceſſary Occaſions for the Glory

of

of God, the Edification of his Church and Inſtruction of the People, I would not have any vainly to boaſt or preſume too much upon the Strength of Memory, but to look upon it as a Gift proceeding from God's Bounty to us. *Staupitius*, a Tutor of *Martin Luther*, in a Sermon thought, in a vain Oſtentation of Memory, to repeat all the Genealogy of Chriſt mentioned by St. *Matthew*; but when he came to the Captivity of *Babylon*, his Memory failed him, which cauſed him to take the Aſſiſtance of his Book, with this Expreſſion, *I ſee*, ſaid he, *that God reſiſteth the Proud.* How many have there been, who vainly priding in this Excellency of the Soul, have been totally deprived of their Memories, forgotten their own Names, their deareſt Relations, *&c.?* The Gifts of God are not to be employed as Inſtruments of our Pride and Folly. Our Great Creator is ſenſible of the Injury done to his Liberality, when we aſcribe to our Induſtry, Sobriety, or the Goodneſs of our Temper, what is moſt and chiefly due to his Bounty. Several ſad Examples therefore of the Reſentment of his Juſtice have appeared before our Eyes, of Perſons who

who have altogether loſt in a manner what was the greateſt Subject of their Glory; that we might learn to avoid ſuch Provocations, and behave our ſelves with Humility and Thankfulneſs to his unwearied Goodneſs, always giving to him the Honour of our Perfections and Enjoyments.

12. For the better Preſervation of the Faculty of Memory, it becomes us to know well its Strength, Ability, Reach and Frailty, that we may take Meaſures accordingly: for the loading of our Memory too much may be as prejudicial to it, as the taking of too heavy a Burden upon our Shoulders will be to our Body and Loins; for it will wrong the Faculty it ſelf, and diſinable it from further Service. Beſides, the Ignorance of our own Weakneſs may expoſe us to the Shame and Laughter of the World, when we ſhall preſume to undertake what we cannot well perform. And as it is with a Man's Stomach when it is filled, cramm'd more than Nature will bear, no Digeſtion can poſſibly be there; and inſtead of ſtrengthning the Body, the Health is impaired, and a ſhameful Diſorder happens: So 'tis with the Memories of Men, they

they muſt not be too much loaded, nor burdened with more than they can well bear, according to the Saying of *Horace*,

Sumite Materiam veſtris qui ſcribitis æquam Viribus, &c.

13. If we are to ſtudy any Liberal Art or Science, it becomes us for the better Encouragement of our Memories, and for a more firm Retention of the Doctrines and Principles, to comprehend the Senſe, Meaning, and Reaſonableneſs of them, before we commit them to their Cuſtody. What we underſtand is our own, and cannot eaſily be forgotten. Reaſon is an excellent Confirmation of Memory when it is concerned in that Employment; for whilſt our reaſoning Faculty continues, we ſhall never forget what it hath formerly approved of, as agreeing with its internal Principles.

14. And if we are to ſpeak in publick, it will be a great Advantage to Memory that we perfectly underſtand the Matter and Buſineſs in queſtion; that we are fully acquainted with the Argument, Myſtery, or Theme that we treat of; that we have ſearch'd and ſtudied all that

that may be alledged for or againſt it, and have continually a proſpect of all that may be ſaid upon the Subject: For in caſe Memory ſhould be interrupted, diſturbed, or fail, it will not be difficult then to recover our ſelves to proceed on; and if we have any thing of Invention, we may ſupply the Defect of Memory by our former Knowledg; however, 'tis a great Aſſiſtance to it to remember all the Particulars, and the continued Series of Diſcourſe, when we thus underſtand perfectly the Subject, and are no Novices in the Matter that we are publickly to deliver.

15. When we betake our ſelves to our Study, or offer to exerciſe our Memory by the delivery of a Diſcourſe, we muſt obſerve what hath been ſaid before to be uſeful for the aſſiſting of Memory, and endeavour to avoid what is prejudicial, as Gluttony, Drunkenneſs, Debauchery, *&c.*

16. Set aſide all other Occupations and Employments, and chiefly thoſe troubleſome Paſſions of the Mind that will not ſuffer us to enjoy our ſelves, as Anger, Wrath, Envy, Revenge, Luſt, Covetouſneſs, Alarms, Fears, *&c.* for when the

the Mind is totally taken up with ſuch uneaſy Gueſts, 'tis not poſſible to employ it about the Functions of Memory, according to the old Proverb,

Pluribus intentus minus eſt ad ſingula ſenſus.

17. A convenient time is to be choſen for the Exerciſe of Memory; for all Seaſons and Times are not proper, nor is the Mind ready diſpoſed always for an Activity: We muſt therefore chuſe ſuch a time as we know our ſelves to be beſt able to retain the Things that we hear and read. Neither are all Tempers alike, but commonly when we are faſting, or after a moderate Repaſt, or in the Night-ſeaſon, or in the Morning, moſt Men are beſt prepared for the Exerciſe of their Memories, and to receive the Impreſſions and Ideas.

18. But one Rule more I muſt add, which I look upon to be the chief; To ſeek from God by our devout and conſtant Prayers, both the Continuance and Increaſe of our Memories: For I muſt confeſs, that 'tis a particular Gift and Favour of our great Creator, who hath beſtowed upon us ſuch a Natural Ability.

As

As therefore it depends upon his Bounty, 'tis from thence that we muſt expect its Perfection and Welfare. And tho by Art we may remove what is prejudicial to it, and help in ſome reſpect the Faculty; tho we may preſcribe Rules for the Practice of Memory, yet all our Endeavours will prove vain and ineffectual without a Bleſſing from above, which we muſt ſtrive to obtain by our Humility and Devotion, being the ordinary Means appointed by the Divine Wiſdom for the getting and increaſing of all Temporal and Spiritual Bleſſings. Neither are we to doubt of gracious Returns to our Requeſts; for we have this Aſſurance from the Sacred Oracle, *If you that are evil know how to give good things to your Children, how much more ſhall your Heavenly Father give his Holy Spirit to them that ask him?* God hath reſerved to himſelf the beſtowing of all Spiritual Gifts, and this of Memory proceeds from him, not only the Faculty, but likewiſe the Practice depends very much upon his immediate Influence; for Experience may inform us, that we have often an inward Aſſiſtance granted to our Petitions, to comfort and help the Weak-

Weakneſs of our Memories in divers occaſions, chiefly where the Intereſt of Religion and his Honour is concerned, as in the publick delivery of his Word and Will to his People. It becomes us therefore in all ſuch Inſtances not to rely or preſume too much upon our own Strength or Ability, but lean and truſt upon the All-ſufficiency of the Holy Spirit, who will never be wanting to them who earneſtly and heartily implore his gracious Aſſiſtance in time of Need.

CHAP. VIII.

Rules to be obſerved to help our Remembrance of things that we deſire to preſerve in Mind.

THE Multiplicity of Ideas and Matters that we commit to our Memories, will ſometimes cauſe the moſt Capacious to forget things of the greateſt Importance. For the better aſſiſting therefore this

this Faculty, to call to our Remembrance ſuch Objects, theſe Rules are to be obſerved.

1. Mind the Order in which thoſe things were firſt entered into our Memories; for the things that precede will oblige us to think upon thoſe that followed, and the Conſequences of things will refreſh in our Fancies that which went before. It becomes us therefore to record them in order with a Connexion and a mutual Dependance, and this Order will direct our Memories, and help them to find out ſuch things as were loſt and defaced by Forgetfulneſs. Therefore a wiſe Man tells us, *Quæ bene invicem ordinata ſunt, benè reminiſcibilia ſunt; quæ vero malè, difficulter in Memoriam revocantur.* The Things that are in good order are eaſily to be remember'd, but thoſe that are without Method or Order cannot, without much difficulty, be recalled to mind.

2. For the better remembring of things, we ought to compare them with thoſe things with which we are familiar, or beſt acquainted, and that have a Reſemblance with them, either in Syllables, in Quantity, in Office, Employment, *&c.*

For

For this Similitude will certainly imprint the Thing or Perſon ſo in our Mind, that if we do caſually forget, we ſhall the more eaſily recover the loſt Idea, becauſe the Idea that we have already in Memory, and that hath a Reſemblance and Relation to that which is abſent in ſome known Particular, will lead our Fancy to it again.

3. We may imprint in our Minds, and fix Things in Memory, by thinking upon their Contraries or Oppoſites; and we may by the ſame means better remember Things that are almoſt blotted out of our Imagination. For Example, he that remembers an *Hector*, cannot forget *Achilles*; he that thinks upon a *Goliah*, will alſo mind a *David*: when we repreſent to our ſelves Sobriety or Temperance, we cannot but have a Notion of Debauchery and Intemperance. Now if that which is contrary is better known to us, it will quickly refreſh the Remembrance of that which we had forgotten.

4. If we deſire to mind Things of Importance, we ought to imprint all the Circumſtances in our Memories of Time, Place, Perſons, Cauſes, *&c.* becauſe theſe Circumſtances being always in our Fancy, will

will alſo keep there the things that we intend to preſerve from Oblivion. And ſuch Circumſtances will ſcarce be defaced if they are recorded in our Memories by the aſſiſtance of the Eyes from the things themſelves, or from the ſight of them written or otherwiſe appearing to this Senſe: for as a Shadow can never be without a Body, nor a Form without a Subſtance, neither can the Circumſtances be in our Minds without that Reality that we purpoſe not to forget.

5. We may think upon Things, and remember them by their Properties and Qualifications. For Example; if we deſire to remember a groſs and fat Man, we may think upon King *Dionyſius*, of whom an Author tells us, that he grew ſo fat, that he could ſcarce ſee, and that at laſt his Eyes were cloſed up with Fat.

6. If we deſire to remember any thing, let us mind that Circumſtance that is belonging to it, moſt admirable, remarkable, or ſutable to our Genius, Temper, or Intereſt; for this will fix it in our Memories in ſuch a manner that it will not eaſily be forgotten.

7. If

7. If we have ſeveral things to record in our Memory, note exactly the Number of them, with the firſt Letter of every ſuch thing which may caſually make up ſome Name or Word; which being fixed in our Mind, will quickly direct us to every particular thing that we deſign not to forget. For Example, I deſire to remember Sugar, Almonds, Prunes, Oil, and Raiſins, I will therefore take the firſt Letter of every Word, and I find they make *Sapor*, which being fixed in the Mind will direct me the ſooner to the things that I deſign to remember.

Some other Rules may be preſcribed for this ſame purpoſe which our Ingenuity may ſupply us with, as a careful Repetition, frequent Meditation, *&c.* but becauſe I have already mentioned them before, I proceed to repreſent the Fancies of ſome Ingenious Men, and a Method which they lay down, and which may ſometimes be uſeful I confeſs for the aſſiſting of an Artificial Memory, and which indeed may very well be named a Fantaſtical Remembrance, becauſe it altogether depends upon the Fancy of the Contriver.

CHAP. IX.

Of Artificial or Fantaſtical Memory or Remembrance.

ARtificial Memory, ſaith the Philoſopher, *Eſt Diſpoſitio imaginaria in mente rerum ſenſibilium, ſuper quas Memoria naturalis reflexa, per eas admonetur ut memoratorum facilius diſtinctiuſq; recordari valeat:* It is an imaginary Diſpoſition in our Mind of ſenſible things, upon which when our Memory reflects, by them it is admoniſhed and aſſiſted to remember more eaſily and diſtinctly things that are to be minded. And, as *Cicero* ſpeaks, *Conſtat ex locis veluti ex cera aut tabella, & imaginibus veluti figuris literarum;* that it conſiſts in Places and Images, *&c.* Now ſome preſcribe the Imagination of a fair and regular Building, divided into many Rooms and Galleries, with differing Colours and diſtinct Pillars, which the

Party

Party muſt fancy to ſtand before him as ſo many Repoſitories where he is to place the Things or Ideas which he deſigns to remember, ordering them according to their ſeveral Circumſtances and Qualifications, for the better Aſſiſtance of Memory. Others, inſtead of a Houſe, Palace or Building, have choſen ſuch Beaſts as anſwer to all the Alphabetical Letters in the Latin Tongue, and inſtead of Rooms have aſſigned their ſeveral Members for our Fancy to fix our Ideas there, and place them for our better Remembrance: Theſe are the Names of the Beaſts, *Aſinus, Baſiliſcus, Canis, Draco, Elephas, Faunus, Gryfus, Hircus, Juvencus, Leo, Mulus, Noctua, Ovis, Panthera, Qualea, Rhinoceron, Simia, Taurus, Urſus, Xyſtus, Hyena, Zacheus.* Every one of theſe they divide into five Parts or Places, into Head, Fore-feet, Belly, Hinder-feet, and Tail; for this is the Order that Nature it ſelf directs, neither can our Imagination be diſordered in reckoning or telling them over. So that by this means the Fancy may have one hundred and fifteen Places to imprint the Images of memorable things. Likewiſe in the Per-

ſon ſpeaking, we may fix the Ideas of things to be remembred, on his Head, Fore-head, Eyes, Mouth, Chin, and ſo downwards on all his Members. But if this way of Remembrance be beneficial, 'tis beſt when the Places where we deſign to leave and commit our Ideas are more known and familiar to us: as for Example, the Town where we live, or the City that we are beſt acquainted with; our Mind muſt as it were enter by the Gate, and proceed to the ſeveral Streets and Quarters of the City, marking the publick Places, Churches, Friends Houſes, *&c.* by this means we may have an infinite number of Places to commit our Ideas. And becauſe all Directions are beſt underſtood by Examples, I ſhall recommend theſe, that this Method of remembring may better be comprehended. Suppoſe therefore a large and empty Houſe, unto which we muſt not go often but ſeldom; ſuppoſe at the Entrance there is one Room about three Foot from the Door, the ſecond about 12 or 15 Foot, being in a Corner, the third being diſtant about the ſame number of Feet; and ſo likewiſe the fourth,

fifth,

fifth, ſixth, ſeventh, and as many as you pleaſe, fancying upon them the Number that denotes and diſtinguiſheth the Rooms and Corners the one from the other, that there may be no Miſtake nor Confuſion in our Remembrance; or, if you pleaſe, diſtinguiſh the ſeveral Rooms by other Characters than Numbers. Now when we have well ſettled and divided the ſeveral Rooms and Corners in our Imagination, where we are to place the Ideas for our Remembrance, we muſt contrive ſuch a remarkable Fancy of that thing that we intend to put there as may not eaſily be forgotten, and ſuch a Fancy as may be remarkable for Folly, Simplicity, Wiſdom or Wonder, *&c.* For Example, If I will remember any thing acted by another, I muſt fancy him in one of theſe Rooms acting in a ridiculous manner that which I deſign not to forget. Now the Figures that we muſt there place ought to provoke to Pity, Wonder, Laughter or Scorn, that it may make a deeper Impreſſion in our Fancy. Again, we may repreſent things by their Likeneſs or Contraries; for Example, If we deſign to remember *Galen*, we will write the Name

of

of ſome famous Phyſician well known to us, or of ſome contemptible Mountebank. If we will remember *Ovidius Naſo*, we ſhall repreſent a Man with a great Noſe; if *Plato*, we ſhall think upon a Perſon with large Shoulders; if *Criſpus*, we ſhall fancy another with curl'd Hair, and ſo of other things. But this Method of remembring things is cumberſome and fantaſtical, and perhaps may not be ſutable to every Temper and Perſon; neither is it proper, or of any uſe for the Delivery of a Diſcourſe by Memory, but rather for the aſſiſting our Remembrance not to forget ſome certain Paſſages of our Life, and of others, and we may make ſome uſe of it for the remembring of Sentences and Names.

I ſhall conclude with juſt ſetting down ſome other Rules which are preſcribed by ſuch as recommend this kind of Artificial Remembrance, for the better imprinting the Ideas in our Mind, and the avoiding Confuſion.

1. That the things we deſign to remember be three or four times read over

over or repeated, before we aſſign to them any kind of Images, or noted Species to preſerve them, for by this means we ſhall be better acquainted with them, and they will be leſs ſtrange to our Imagination.

2. We muſt know how to adapt ſuch Figures as are moſt ſutable to the things to be preſerved in our Memory, and ſuch Figures as are known to us, that we may be the more quickly and eaſily minded of the things themſelves.

3. Now to ſuch Figures we muſt aſſign a convenient Action or Motion, for that makes a greater Impreſſion than ſuch as are ſtill and quiet, and the Imagination is more readily moved by a moving Object than by one without Life and Motion.

4. Such Figures are to be contrived to mind us of the things as may excite the Paſſions of the Soul and the Affections, as Sorrow, Anger, Pleaſure, Indignation, Wrath, Wonder or Compaſſion. *&c.* thereby the Soul is more concerned in keeping in mind the Things and Ideas that we deſire to preſerve.

5. We

5. We are to make use of such Figures as are proper not only for the Things, but also for the Places where we lay them up for our Remembrance, and such as have a natural Relation to the Places, as a Miller grinding in his Mill, the Fish in the Water, Birds flying in the Air, wild Beasts in a Forest, *&c.* And therefore we may rather use Natural Figures than Artificial, or such as our Fancy may contrive.

6. Again, those Figures must not be too mean or contemptible, nor too high above our ordinary Reach, Capacity, and familiar Acquaintance.

7. Neither are we to make use of the same Figures or Images to represent divers things at the same time: Therefore we must have ready in our Fancy several Images to picture out, or form the Ideas of the things that are to be remembred.

8. Such Images are to be often recall'd in our Mind in the same order as they were placed, with their several Circumstances and Properties, and such as are most remarkable and notable: for if by chance the Idea be blotted out, those Circumstances will quickly renew them

in

in our Memorative Faculty; and a frequent Repetition will make a deeper Impreſſion in our Minds of the things that we deſire not to forget; chiefly if this Repetition be made when we are going to lay down our Heads upon our Pillows: for it is obſervable, that what we think upon when we are going to ſleep, we ſhall have freſh in our Fancy when we awake the next Morning. And in thoſe Intervals that we lie quiet at Midnight without ſleeping, we may eaſily imprint in our Imagination things that will not quickly be forgotten. The Mind will then be more ſuſceptible, more retentive and tenacious of any Idea that we recommend to it with Deliberation, and free from the Incumbrance of Buſineſs: for he that will make uſe of his Memory, muſt know himſelf what time and ſeaſon is moſt proper to employ it, when it is moſt at liberty, and freeſt to receive the Impreſſions or Ideas of Things. 'Tis with Memory as with the other Faculties and Abilities belonging to Man, there is a time for Action, and a time when they are not fit, and a Temper that renders them unable to produce the Natural Ope-

rations. Such Times therefore, Seaſons and Tempers are to be choſen for the Exerciſe of Memory when it is altogether diſingaged from Troubles, Impediments, and all Incumbrances, and freeſt for Action. Our youthful Days are the moſt proper to begin to employ this Faculty, for we then may ſpeedily learn, and eaſily improve this Ability to our great Comfort and Advantage in the following courſe of our Lives. And as it hath already been obſerved, Exerciſe will render us by degrees more perfect: So that we ſhall never have cauſe to repent of the Labours and Pains that we take in this caſe at the beginning of our Days. It is therefore the Advice of a wiſe Author,

Nunc adhibe puro pectore verba puer;
Nunc te melioribus offer.
Quo ſemel eſt imbuta recens ſervabit odorem
Teſta diu.

And another tells us, *Non tantum celeriùs, ſed etiam perfectiùs imbuuntur, quæ à pueris diſcuntur.* Veget. lib. 1.

I ſhall conclude this Treatiſe with the two Verſes of *Perſius*.

Mille hominum ſpecies & rerum diſcolor uſus,
Velle ſuum cuiq; eſt, nec voto vivitur uno.

And with the Proverb of *Heſiod*,

Ἔργα νέων, βουλὰι δὲ μέσων, ἔυχαι δὲ γερόντων.

And with the Saying of *Tully*,

Virtute duce, comite fortuna, omnia ſumma conſequi poſſumus.

FINIS.

BOOKS printed for Andrew Bell *in* Cornhil, *near* Stocks-market.

A *Dvice to the Young*; or the Reaſonableneſs and Advantages of an Early Converſion: In three Sermons on *Eccleſ.* 12. 1. By *Joſeph Stennett.*

Emblems, by *Fra. Quarles*; with the Hieroglyphicks: All the Cuts being newly illuſtrated.

12JU73